Textile Research Journal

Index to

Volume XVIII, Numbers 1-12 (January-December), 1948

Publication of
The Textile Research Institute, Inc.
and
The Textile Foundation

Textile Research Journal

Volume XVIII, Numbers 1–12 (January–December), 1948

Month	*Number*	*Pages*	*Month*	*Number*	*Pages*
January	1	1–70	July	7	387–448
February	2	71–140	August	8	449–510
March	3	141–200	September	9	511–572
April	4	201–262	October	10	573–642
May	5	263–324	November	11	643–704
June	6	325–386	December	12	705–766

Author and Title Index

	No.	Page
Backer, Stanley. Relationship Between the Structural Geometry of a Textile Fabric and Its Physical Properties	11	650
Barach, J. L. (with Mersereau). An Application of Spectrophotometry in the Textile Industry: Testing Dyestuff Shipments	7	436
Barnes, James C. (with Elting). A Permeability Method for Determining Fiber Fineness	6	358
Bergmann, M. E. (with Fankuchen, Mark). A Few Experiments on the Crystallinity of Polyamides	1	1
Berkley, Earl E.		
Certain Variations in the Structures of Wood Fibers (with Woodyard)	9	519
Cotton—A Versatile Textile Fiber	2	71
Degree of Polymerization of Cellulose in Cotton Fibers (with Hessler, Merola)	10	628
Degree of Polymerization, Spiral Structure, and Strength of Cotton Fiber (with Hessler, Simpson)	11	679
Bowen, Carol F. (with Toner, Whitwell). Moisture Determination in Textiles by Electrical Meters: Part I	9	526
Broadfoot, H. H. (with Schwarz). An Improved Permanent Mounting Medium for Textile Fibers (Laboratory Techniques)	12	756
Burte, Harris		
A New Concept of the Mechanical Behavior of Fibers (with Halsey, Dillon)	8	449
Secondary Yield Point in Wet Wool Fibers (Discussion of Published Papers)	10	635
Campbell, K. S. (with Fynn, Sands). Cellulose Behavior with Filtered Sunlight	6	350
Conrad, Carl M. (with Nelson)		
Effect of Grinding on the Crystallinity of Cellulose Fibers, as Indicated by the Acid-Hydrolysis and Other Techniques	3	155
Improvements in the Acid-Hydrolysis Method of Determining the Crystallinity of Cellulose	3	149
Daul, George C. (with Reid). The Partial Carboxymethylation of Cotton to Obtain Swellable Fibers: Part II	9	551
deGruy, Ines V. (with Rollins). A Microscopical Technique for Determining Latex Distribution in Tire Cords	6	371
Dillon, J. H. (with Halsey, Burte). A New Concept of the Mechanical Behavior of Fibers	8	449
Dunell, Basil A. (with Halsey). Thixotropic Viscoelastic Systems	3	178
Egerton, G. S. Some Aspects of the Photochemical Degradation of Nylon, Silk, and Viscose Rayon	11	659
Elöd, Egon (with Fröhlich). Influence of Fibrous Structure of Rayon on Its Swelling and Density, II	8	487
Elting, John P. (with Barnes). A Permeability Method for Determining Fiber Fineness	6	358
Engeler, A. Discussion of Published Papers ("Use of Supersonics in the Preparation of Fiber Samples for Electron-Microscope Studies," by Frey-Wyssling, Mühlethaler)	1	45
Fankuchen, I. (with Bergmann, Mark). A Few Experiments on the Crystallinity of Polyamides	1	1
Finch, Rogers B.		
Compressional Behavior of Textile Materials		
Part I: Measurement at a Constant Rate of Deformation	3	165
Part II: Measurement of Compressional Stress Relaxation at Constant Deformation	4	237
Fischer, Earl K. (with Lindsley). Rheological Measurements with the Rotational Viscometer	6	325
Fourt, Lyman (with Schiefer, Kropf)		
Textile Testing in Germany		
Part II: Serviceability Evaluation of Textiles	1	18
Part III: Testing Flexural and Compressional Properties	2	89
Part IV: Miscellaneous	2	95
Frick, John G., Jr. (with Schuyten, Reid, Weaver)		
Imparting Water-Repellency to Textiles by Chemical Methods. A Review of the Literature		
Part I: Acids, Acid Halides, Acid Anhydrides, and Other Esterifying Agents	7	396
Part II: Quaternary Nitrogen Compounds	7	403
Part III: Esters and Urethanes	8	490
Part IV: Amines, Amides, and Related Compounds	8	492
Part V: Aldehydes	8	494
Part VI: Polymers Formed *in situ*	8	495
Part VII: Ethers, Epoxides, and Related Compounds	8	497
Part VIII: Cyanates, Thiocyanates, and Related Compounds	8	497
Part IX: Urea Derivatives	8	500
Part X: Silicon Derivatives and Miscellaneous Compounds	8	502
Frishman, Daniel (with Smith, Harris). Measurement of the Frictional Properties of Wool Fibers	8	475
Fröhlich, H. G. (with Elöd). Influence of Fibrous Structure of Rayon on Its Swelling and Density, II	8	487
Fynn, P. J. (with Sands, Campbell). Cellulose Behavior with Filtered Sunlight	6	350
Gagliardi, D. D. (with Gruntfest). Modification of Cellulose by Reaction with Formaldehyde	11	643
Geyer, Charles J. (with Reichardt, Halsey). Theory of Commercial Yarn Testing	6	338
Goldthwait, Charles F. (with Smith, Murphy). An Orifice Test to Evaluate Yarns for Swelling-Type Water-Resistant Fabrics	2	124
Gralén, Nils (with Lindberg). Measurement of Friction Between Single Fibers: Part II: Frictional Properties of Wool Fibers Measured by the Fiber-Twist Method	5	287
Grant, James N. (with Morlier). Relation of Specific Strength of Cotton Fibers to Fiber Length and Testing Method	8	481
Gruntfest, I. J. (with Gagliardi). Modification of Cellulose by Reaction with Formaldehyde	11	643
Guthrie, John D. (with Jurgens, Reid). Phosphorylated Cotton Cellulose as a Cation-Exchange Material	1	42
Halsey, George		
New Concept of the Mechanical Behavior of Fibers (with Burte, Dillon)	8	449

E. Exp. Lib. Fayon

East Engin. Library
T S
1300
.T 358

	No.	Page
New Theory of Non-Linear Viscous Elasticity: Part II: Curve Shape Factor (with Katz)	9	557
Theory of Commercial Yarn Testing (with Geyer, Reichardt)	6	338
Thixotropic Viscoelastic Systems (with Dunell)	3	178
Hamburger, Walter J.		
Mechanics of Elastic Performance of Textile Materials		
Part I: Development of an Elastic Performance Coefficient in Tension	2	102
Part II: The Application of Sonic Techniques to the Investigation of the Effects of Visco-Elastic Behavior upon Stress-Strain Relationships in Certain High Polymers	12	705
Harris, J. C. Adsorption of Surface-Active Agents by Fibers	11	669
Harris, Milton (with Frishman, Smith). Measurement of the Frictional Properties of Wool Fibers	8	475
Hays, Margaret B. (with Kelly). Effect of Clamp Design on Fabric Breaking Strength (Laboratory Techniques)	2	130
Hermans, P. H. Staining of Viscose Rayon Cross Sections	1	9
Hessler, Lyle E.		
Degree of Polymerization of Cellulose in Cotton Fibers (with Merola, Berkley)	10	628
Degree of Polymerization, Spiral Structure, and Strength of Cotton Fiber (with Simpson, Berkley)	11	679
Hicks, E. M. (with Scroggie). Taber Yarn-Sheet Abrasion Test	7	416
Hock, Charles W. An Electron-Microscopical Examination of Rayon	6	366
Hoffman, R. M. A Generalized Concept of Resilience	3	141
Hoover, Sam R.		
Constitutional Factors in the Production of Artificial Protein Fiber (with Kokes, Peterson)	7	423
Continuous-Filament Casein Yarn (with Peterson, McDowell)	12	744
Hudson, R. E. (with Waddle). The Sulfuric Acid Steep at Elevated Temperatures for Gray Cotton Fabrics	4	232
Jurgens, Julian F. (with Reid, Guthrie). Phosphorylated Cotton Cellulose as a Cation-Exchange Material	1	42
Katz, S. M. (with Halsey). A New Theory of Non-Linear Viscous Elasticity: Part II: The Curve Shape Factor	9	557
Kelly, Warren T. (with Hays). Effect of Clamp Design on Fabric Breaking Strength (Laboratory Techniques)	2	130
Kokes, Elsie L. (with Hoover, Peterson). Constitutional Factors in the Production of Artificial Protein Fiber	7	423
Kropf, Richard T. (with Schiefer, Fourt)		
Textile Testing in Germany		
Part II: Serviceability Evaluation of Textiles	1	18
Part III: Testing Flexural and Compressional Properties	2	89
Part IV: Miscellaneous	2	95
La Fleur, Kermit S. Wetting of Wool as a Function of the Duration of Fadeometer Exposure	1	39
Levinson, H. S. (with Mandels, Stahl). Structural Changes in Wool Degraded by the Ringworm Fungus *Microsporum Gypseum* and Other Microorganisms	4	224
Lindberg, Joel		
Measurement of Friction Between Single Fibers		
Part II: Frictional Properties of Wool Fibers Measured by the Fiber-Twist Method (with Gralén)	5	287
Part III: Influence of Different Treatments on the Frictional Properties of Wool Fibers	8	470
Lindsley, Charles H. (with Fischer). Rheological Measurements with the Rotational Viscometer	6	325
Mandels, G. R. (with Stahl, Levinson). Structural Changes in Wool Degraded by the Ringworm Fungus *Microsporum Gypseum* and Other Microorganisms	4	224
Mark, H. (with Bergmann, Fankuchen). A Few Experiments on the Crystallinity of Polyamides	1	1
McDowell, Robert L. (with Peterson, Hoover). Continuous-Filament Casein Yarn	12	744
Mehta, P. C. (with Pacsu). Cellulose Studies: Part X: Heterogeneous Degradation of Cellulose and Viscose Rayon in Organic Acid Solutions	7	387
Merola, George V. (with Hessler, Berkley). Degree of Polymerization of Cellulose in Cotton Fibers	10	628
Mersereau, E. P. (with Barach). An Application of Spectrophotometry in the Textile Industry: Testing Dyestuff Shipments	7	436
Moore, Harry B. Retardation of Heat-Induced Strength Loss in Cotton Yarns by Liquid Ammonia Treatment	12	749
Morlier, Ora W. (with Grant). Relation of Specific Strength of Cotton Fibers to Fiber Length and Testing Method	8	481
Murphy, Alton L. (with Smith, Goldthwait). An Orifice Test to Evaluate Yarns for Swelling-Type Water-Resistant Fabrics	2	124
Nelson, Mary L. (with Conrad)		
Effect of Grinding on the Crystallinity of Cellulose Fibers, as Indicated by the Acid-Hydrolysis and Other Techniques	3	155
Improvements in the Acid-Hydrolysis Method of Determining the Crystallinity of Cellulose	3	149
O'Shaughnessy, M. T. An Experimental Study of the Creep of Rayon	5	263
Pacsu, Eugene (with Mehta). Cellulose Studies: Part X: Heterogeneous Degradation of Cellulose and Viscose Rayon in Organic Acid Solutions	7	387
Paul, George T. (with Wilhelm). Radiation Drying of Textiles	10	573
Peters, L. (with Speakman). The Visco-Elastic Properties of Wool Fibers	9	511
Peterson, Robert F.		
Constitutional Factors in the Production of Artificial Protein Fiber (with Kokes, Hoover)	7	423
Continuous-Filament Casein Yarn (with McDowell, Hoover)	12	744
Phillips, J. K. Modification of the Flat-Bundle Test Method for Testing Cotton-Fiber Strength (Laboratory Techniques)	11	684
Reichardt, C. H. (with Geyer, Halsey). Theory of Commercial Yarn Testing	6	338
Reid, J. David		
Imparting Water-Repellency to Textiles by Chemical Methods. A Review of the Literature (with Schuyten, Weaver, Frick)		
Part I: Acids, Acid Halides, Acid Anhydrides, and Other Esterifying Agents	7	396
Part II: Quaternary Nitrogen Compounds	7	403
Part III: Esters and Urethanes	8	490
Part IV: Amines, Amides, and Related Compounds	8	492
Part V: Aldehydes	8	494
Part VI: Polymers Formed *in situ*	8	495
Part VII: Ethers, Epoxides, and Related Compounds	8	497
Part VIII: Cyanates, Thiocyanates, and Related Compounds	8	497
Part IX: Urea Derivatives	8	500
Part X: Silicon Derivatives and Miscellaneous Compounds	8	502
Partial Carboxymethylation of Cotton to Obtain Swellable Fibers: Part II (with Daul)	9	551
Phosphorylated Cotton Cellulose as a Cation-Exchange Material (with Jurgens, Guthrie)	1	42
Robinson, R. D. (with Royer, Zimmerman, Walter). Dyeing Studies at Elevated Temperatures: Use of Temperatures Between 200°F and 300°F	10	598
Rollins, Mary L. (with deGruy). A Microscopical Technique for Determining Latex Distribution in Tire Cords	6	371
Roseveare, W. E. (with Waller, Wilson). Structure and Properties of Regenerated Cellulose	2	114
Royer, G. L.		
Dyeing Studies at Elevated Temperatures: Use of Temperatures Between 200°F and 300°F (with Walter, Zimmerman, Robinson)	10	598
Laboratory Study of Padding: Part I: Cotton (with Zimmerman)	10	615
Sands, J. E. (with Fynn, Campbell). Cellulose Behavior with Filtered Sunlight	6	350
Schiefer, Herbert F. (with Fourt, Kropf)		
Textile Testing in Germany		
Part II: Serviceability Evaluation of Textiles	1	18
Part III: Testing Flexural and Compressional Properties	2	89
Part IV: Miscellaneous	2	95
Schuyten, H. A. (with Reid, Weaver, Frick)		
Imparting Water-Repellency to Textiles by Chemical Methods. A Review of the Literature		
Part I: Acids, Acid Halides, Acid Anhydrides, and Other Esterifying Agents	7	396
Part II: Quaternary Nitrogen Compounds	7	403
Part III: Esters and Urethanes	8	490
Part IV: Amines, Amides, and Related Compounds	8	492
Part V: Aldehydes	8	495
Part VI: Polymers Formed *in situ*	8	494
Part VII: Ethers, Epoxides, and Related Compounds	8	497
Part VIII: Cyanates, Thiocyanates, and Related Compounds	8	497
Part IX: Urea Derivatives	8	500
Part X: Silicon Derivatives and Miscellaneous Compounds	8	502
Schwarz, E. R. (with Broadfoot). An Improved Permanent Mounting Medium for Textile Fibers (Laboratory Techniques)	12	756
Scroggie, A. G. (with Hicks). Taber Yarn-Sheet Abrasion Test.	7	416
Seeman, Gloria S. (with Swerdlow). A Method for the Electron Microscopy of Wool	9	536
Simpson, Marion E. (with Hessler, Berkley). Degree of Polymerization, Spiral Structure, and Strength of Cotton Fiber.	11	679
Smith, Arthur L. (with Frishman, Harris). Measurement of the Frictional Properties of Wool Fibers	8	475
Smith, Herbert O. (with Murphy, Goldthwait). An Orifice Test to Evaluate Yarns for Swelling-Type Water-Resistant Fabrics	2	124
Speakman, J. B. (with Peters). The Visco-Elastic Properties of Wool Fibers	9	511
Stahl, W. H. (with Mandels, Levinson). Structural Changes in Wool Degraded by the Ringworm Fungus *Microsporum Gypseum* and Other Microorganisms	4	224
Stein, Richard S. (with Tobolsky)		
An Investigation of the Relationship Between Polymer Structure and Mechanical Properties		
Part I: Relationship Between Structure, Mechanical Properties, and Birefringence	4	201

	No.	Page
Part II: An Experimental Study of the Stress and Birefringence Properties of Several Relaxing Polymeric Systems	5	302
Swerdlow, Max (with Seeman). A Method for the Electron Microscopy of Wool	9	536
Tobolsky, Arthur V. (with Stein)		
An Investigation of the Relationship Between Polymer Structure and Mechanical Properties		
Part I: Relationship Between Structure, Mechanical Properties, and Birefringence	4	201
Part II: An Experimental Study of the Stress and Birefringence Properties of Several Relaxing Polymeric Systems	5	302
Toner, Richard K. (with Bowen, Whitwell). Moisture Determination in Textiles by Electrical Meters: Part I	9	526
Waddle, Howard M. (with Hudson). The Sulfuric Acid Steep at Elevated Temperatures for Gray Cotton Fabrics	4	232
Waller, R. C. (with Roseveare, Wilson). Structure and Properties of Regenerated Cellulose	2	114
Walter, H. J. (with Royer, Zimmerman, Robinson). Dyeing Studies at Elevated Temperatures: Use of Temperatures Between 200°F and 300°F	10	598
Weaver, J. W. (with Schuyten, Reid, Frick)		
Imparting Water-Repellency to Textiles by Chemical Methods. A Review of the Literature		
Part I: Acids, Acid Halides, Acid Anhydrides, and Other Esterifying Agents	7	396
Part II: Quaternary Nitrogen Compounds	7	403
Part III: Esters and Urethanes	8	490
Part IV: Amines, Amides, and Related Compounds	8	492
Part V: Aldehydes	8	494
Part VI: Polymers Formed *in situ*	8	495
Part VII: Ethers, Epoxides, and Related Compounds	8	497
Part VIII: Cyanates, Thiocyanates, and Related Compounds	8	497
Part IX: Urea Derivatives	8	500
Part X: Silicon Derivatives and Miscellaneous Compounds	8	502
Whitwell, John C. (with Bowen, Toner). Moisture Determination in Textiles by Electrical Meters: Part I	9	526
Wilhelm, R. H. (with Paul). Radiation Drying of Textiles	10	573
Wilson, J. N. (with Roseveare, Waller). Structure and Properties of Regenerated Cellulose	2	114
Woodyard, O. C. (with Berkley). Certain Variations in the Structure of Wood Fibers	9	519
Zimmerman, C. L.		
Dyeing Studies at Elevated Temperatures: Use of Temperatures Between 200°F and 300°F (with Royer, Walter, Robinson)	10	598
Laboratory Study of Padding: Part I: Cotton (with Royer)	10	615

Subject Index

	No.	Page
Abrasion: *See* **Yarn-Sheet**		
Adsorption of Surface-Active Agents by Fibers (Harris)	11	669
Ammonia Treatment, Liquid, in Retardation of Heat-Induced Strength Loss in Cotton Yarns (Moore)	12	749
Birefringence: *See* **Polymer Structure**		
Carboxymethylation: *See* **Cotton**		
Casein: *See* **Continuous-Filament**		
Cation-Exchange: *See* **Cellulose**		
Cellulose, Cotton, Phosphorylated, as a Cation-Exchange Material (Jurgens, Reid, Guthrie)	1	42
Cellulose, Degree of Polymerization of, in Cotton Fibers (Hessler, Merola, Berkley)	10	628
Cellulose, Modification of, by Reaction with Formaldehyde (Gruntfest, Gagliardi)	11	643
Cellulose, Regenerated, Structure and Properties of (Roseveare, Waller, Wilson)	2	114
Cellulose Behavior with Filtered Sunlight (Fynn, Sands, Campbell)	6	350
Cellulose Fibers, Crystallinity of (Nelson, Conrad)		
Effect of Grinding on the Crystallinity of Cellulose Fibers, as Indicated by the Acid-Hydrolysis and Other Techniques	3	155
Improvements in the Acid-Hydrolysis Method of Determining the Crystallinity of Cellulose	3	149
Cellulose Studies: X: Heterogeneous Degradation of Cellulose and Viscose Rayon in Organic Acid Solutions (Mehta, Pacsu)	7	387
Clamp Design, Effect of, on Fabric Breaking Strength (Laboratory Techniques) (Kelly, Hays)	2	130
Compressional Behavior of Textile Materials (Finch)		
Part I: Measurement at a Constant Rate of Deformation	3	165
Part II: Measurement of Compressional Stress Relaxation at Constant Deformation	4	237
Continuous-Filament Casein Yarn (Peterson, McDowell, Hoover)	12	744
Cotton, Laboratory Study of Padding (Zimmerman, Royer)	10	615
Cotton, Partial Carboxymethylation of, to Obtain Swellable Fibers, Part II (Reid, Daul)*	9	551
Cotton, Versatile Textile Fiber (Berkley)	2	71
Cotton Fibers, Degree of Polymerization, Spiral Structure, and Strength of (Hessler, Berkley, Simpson)	11	679
Cotton Fibers, Modification of the Flat-Bundle Test Method for Testing Strength of (Laboratory Techniques) (Phillips)	11	684
Cotton Fibers, Relation of Specific Strength to Fiber Length and Testing Method (Grant, Morlier)	8	481
Cotton Fibers: *See also* **Cellulose Fibers; Liquid Ammonia Treatment**		
Crystallinity: *See* **Cellulose Fibers; Polyamides**		
Curve Shape Factor: *See* **Elasticity**		
Deformation: *See* **Compressional Behavior**		
Degradation, Photochemical, Some Aspects of, on Nylon, Silk, and Viscose Rayon (Egerton)	11	659
See also **Cellulose Studies; Wool Degradation**		
Drying, Radiation, of Textiles (Paul, Wilhelm)	10	573
Dyeing Studies at Elevated Temperatures: Use of Temperatures Between 200°F and 300°F (Royer, Walter, Zimmerman, Robinson)	10	598
Dyeing: *See also* **Staining**		
Elastic Performance of Textile Materials, Mechanics of (Hamburger)		
Part I: Development of an Elastic Performance Coefficient in Tension	2	102
Part II: Application of Sonic Techniques to the Investigation of the Effects of Visco-Elastic Behavior upon Stress-Strain Relationships in Certain High Polymers	12	705
Elasticity, Non-Linear, Viscous, New Theory of, Part II: Curve Shape Factor (Katz, Halsey)*	9	557
Electron-Microscopical Examination of Rayon (Hock)	6	366
Electron Microscopy of Wool, Method for the (Swerdlow, Seeman)	9	536
Electron Microscopy: *See also* **Supersonics**		
Fabrics: *See* **Clamp Design; Sulfuric Acid Steep; Textile Fabrics; Yarns**		
Fadeometer: *See* **Wool, Wetting of**		
Fiber Fineness: *See* **Permeability**		
Fibers, Mechanical Behavior of, New Concept (Burte, Halsey, Dillon)	8	449
Fibers: *See also* **Adsorption; Cotton Fibers; Friction; Frictional Properties; Mounting Medium; Permeability; Rayon; Water-Repellency**		
Formaldehyde: *See* **Cellulose, Modification of**		
Friction Between Single Fibers, Measurement of (Lindberg, Gralén)†		
Part II: Frictional Properties of Wool Fibers Measured by the Fiber-Twist Method	5	287
Part III: Influence of Different Treatments on the Frictional Properties of Wool Fabrics	8	470
Frictional Properties of Wool Fibers, Measurement of (Smith, Frishman, Harris)	8	475
Laboratory Techniques: *See* **Clamp Design; Cotton Fibers; Mounting Medium**		
Latex Distribution in Tire Cords, Microscopical Technique for Determining (deGruy, Rollins)	6	371
Meters, Electrical: *See* **Moisture Determination**		
Microsporum Gypseum: *See* **Wool Degradation**		
Moisture Determination in Textiles by Electrical Meters: Part I (Toner, Bowen, Whitwell)	9	526
Mounting Medium for Textile Fibers, An Improved Permanent (Laboratory Techniques) (Broadfoot, Schwarz)	12	756
Nylon: *See* **Degradation**		
Padding: *See* **Cotton**		
Permeability Method for Determining Fiber Fineness (Elting, Barnes)	6	358

* Part I appeared in the October, 1947, issue, page 554.

* Part I appeared in the September, 1947, issue, page 465.
† Part I appeared in the September, 1947, issue, page 488.

	No.	Page
Polyamides, Crystallinity of, Experiments on (Bergmann, Fankuchen, Mark)	1	1
Polymer Structure and Mechanical Properties (Stein, Tobolsky)		
Part I: Relationship Between Structure, Mechanical Properties, and Birefringence	4	201
Part II: An Experimental Study of the Stress and Birefringence Properties of Several Relaxing Polymeric Systems	5	302
Polymerization: *See* **Cellulose; Cotton Fibers**		
Protein Fiber, Artificial, Constitutional Factors in the Production of (Hoover, Kokes, Peterson)	7	423
Radiation Drying: *See* **Drying**		
Rayon, Experimental Study of Creep of (O'Shaughnessy)	5	263
Rayon, Influence of Fibrous Structure on Its Swelling and Density, II (Elöd, Fröhlich)*	8	487
Rayon: *See also* **Cellulose Studies; Creep; Degradation; Electron Microscopy; Staining**		
Resilience, Generalized Concept of (Hoffman)	3	141
Rheological Measurements: *See* **Viscometer**		
"Secondary Yield Point": *See* **Wool Fibers**		
Silk: *See* **Degradation**		
Sonic Techniques: *See* **Elastic Performance**		
Spectrophotometry, Application in the Textile Industry: Testing Dyestuff Shipments (Mersereau, Barach)	7	436
Spiral Structure: *See* **Cotton Fiber**		
Staining Viscose Rayon Cross Sections (Hermans)	1	9
Stress: *See* **Polymer Structure**		
Structural Geometry: *See* **Textile Fabrics**		
Sulfuric Acid Steep at Elevated Temperatures for Gray Cotton Fabrics (Hudson, Waddle)	4	232
"Supersonics, Use of, in the Preparation of Fiber Samples for Electron-Microscope Studies" by Frey-Wyssling, Mühlethaler (Discussion of Published Papers) (Engeler)	1	45
Surface-Active Agents: *See* **Adsorption**		
Swelling: *See* **Yarns**		
Taber Abraser: *See* **Yarn-Sheet Abrasion Test**		
Temperatures: *See* **Dyeing**		
Textile Fabric, Relationship Between the Structural Geometry and Its Physical Properties (Backer)	11	650

* Part I appeared in the September, 1946, issue, page 432.

	No.	Page
Textile Testing in Germany (Schiefer, Fourt, Kropf)*		
Part II: Serviceability Evaluation of Textiles	1	18
Part III: Testing Flexural and Compressional Properties	2	89
Part IV: Miscellaneous	2	95
Textile Testing: *See also* **Cotton Fibers; Spectrophotometry; Yarn-Sheet; Yarn Testing; Yarns**		
Thixotropic Viscoelastic Systems (Dunell, Halsey)	3	178
Tire Cords: *See* **Latex**		
Viscometer, Rotational, Rheological Measurements with (Fischer, Lindsley)	6	325
Water-Repellency, Imparting to Textiles by Chemical Methods: A Review of the Literature (Schuyten, Reid, Weaver, Frick)		
Part I: Acids, Acid Halides, Acid Anhydrides, and Other Esterifying Agents	7	396
Part II: Quaternary Nitrogen Compounds	7	403
Part III: Esters and Urethanes	8	490
Part IV: Amines, Amides, and Related Compounds	8	492
Part V: Aldehydes	8	494
Part VI: Polymers Formed *in situ*	8	495
Part VII: Ethers, Epoxides, and Related Compounds	8	497
Part VIII: Cyanates, Thiocyanates, and Related Compounds	8	497
Part IX: Urea Derivatives	8	500
Part X: Silicon Derivatives and Miscellaneous Compounds	8	502
Wood Fibers, Certain Variations in the Structure of (Berkley, Woodyard)	9	519
Wool, Wetting of, as a Function of the Duration of Fadeometer Exposure (La Fleur)	1	39
Wool Degradation, Structural Changes by the Ringworm Fungus *Microsporum Gypseum* and Other Microorganisms (Mandels, Stahl, Levinson)	4	224
Wool Fibers, Visco-Elastic Properties of (Peters, Speakman)	9	511
Wool Fibers, Wet, "Secondary Yield Point" in (Discussion of Published Papers) (Burte)	10	635
Yarn-Sheet Abrasion Test, Taber (Hicks, Scroggie)	7	416
Yarn Testing, Commercial, Theory of (Geyer, Reichardt, Halsey)	6	338
Yarns, Orifice Test to Evaluate for Swelling-Type Water-Resistant Fabrics (Smith, Murphy, Goldthwait)	2	124

* Part I appeared in the December, 1947, issue, page 689.

Book Reviews

	No.	Page
Cellulose, Action of Alkali upon. Albert Schaeffer. Textile Series 33 (1948)	9	562
Chemical Formulary, Vol. VIII. H. Bennett, editor (1948)	11	690
Chemical Technology, Encyclopedia of, Vol. I: *A* to *Anthrimides*. R. E. Kirk and D. F. Othmer, editors (1947)	4	246
Chemistry, Carbohydrate, Advances in, Vol. III (1948). W. W. Pigman and M. L. Wolfrom, editors	11	687
Chemistry of the Carbohydrates. W. W. Pigman and R. M. Goepp (1948)	11	688
Colloid Science: A Symposium. E. K. Rideal, A. E. Alexander, D. D. Eley, P. Johnson, F. Eirich, R. F. Tucket, J. H. Schulman, M. P. Perutz, G. S. Adair, G. B. B. M. Sutherland, R. R. Smith (1947)	1	47
Color, Introduction to. Ralph M. Evans (1948)	11	688
Cotton, The Heritage of. Revised Ed. M. D. C. Crawford (1948)	7	440
Cotton Belt: Study of Agricultural and Economic Problems of. Hearings before Special Subcommittee on Cotton of the Committee on Agriculture, House of Representatives (1947)	2	134
Cotton Textile Costs. Committee on Costs, Frank C. Williams, chairman (1948)	7	441
Dyestuffs and Dyeing, Vat. M. R. Fox (1947)	2	133
Dyestuffs and Textile Auxiliaries, Technological Dictionary for Industries Consuming (Fachwörterbuch für die Farbstoffe und Textilhilfsmittel verbrauchenden Industrien) (German-English). I. G. Farben (1947)	2	133
Fachwörterbuch für die Farbstoffe und Textilhilfsmittel verbrauchenden Industrien: *See* **Dyestuffs and Textile Auxiliaries**		
Fatty Acids, Their Chemistry and Physical Properties. Klare S. Markley (1947)	1	46
Fibers, Long Vegetable. Ludwig Weindling (1947)	7	441
Flameproofing Textile Fabrics. Robert W. Little, editor (1947)	1	46
Heating, Dielectric, High-Frequency, Bibliography. Ralph A. Rusca (1947)	9	562
Industrial Experimentation. K. A. Brownlee (1947)	5	316
International Industry Yearbook. Lloyd J. Hughlett, editor (1948)	7	441
Kunstharze: *See* **Resins, Synthetic**		
Light, Chemical Aspects of. 2nd Ed. E. J. Bowen (1946)	6	374
Microscopy, Textile, in Germany. Office of Quartermaster General (1947)	1	47
Organic Chemistry. Paul Karrer. 3rd English Ed. A. J. Mee, translator (1947)	5	315
Organic Chemistry, Elsevier's Encyclopedia of, Vol. XIV: Tetracyclic and Higher-Cyclic Compounds. Series III: Carboisocyclic Condensed Compounds. Edith Josephy and F. Radt, editors (1947)	4	245
Phenoplasts: Their Structure, Properties, and Chemical Technology. High Polymers, Vol. VII. T. S. Carswell (1947)	2	133
Plastic, Adventures in Man's First. Nelson S. Knaggs (1947)	11	689
Plastics, Modern Encyclopedia. Plastics Catalogue Corp. (1948)	11	689
Plastics, The Science of, Vol. I. H. Mark and E. S. Proskauer, editors (1948)	9	560
Polymers, High, Mechanical Behavior of. Turner Alfrey, Jr. (1948)	9	560
Research in Industry—Its Organization and Management. C. C. Furnas, editor (1948)	9	562
Resins, Synthetic (Kunstharze) (in German). H. Wagner and H. F. Sarx (1946)	4	246
Rheology, Essays in: A Contribution to the Literature of a New Science. British Rheologists' Club (1947)	2	134
Spinning Rayon Staple on the Cotton System. American Viscose Corporation (1948)	5	315
Technical and Chemical Dictionary (Russian-English). L. I. Callaham (1947)	2	135
Textile Chemistry and Dyeing, Part I: Chemical Technology of the Fibers. 10th Ed. Louis A. Olney (1947)	4	245
Textile Materials, Identification of. Textile Institute of England (1948)	11	690
Water-Repellency, Imparting to Textiles by Chemical Methods; An Index of Compounds Used. H. A. Schuyten, J. David Reid, J. W. Weaver, and John G. Frick, Jr. (1948)	7	440
Waxes, Chemistry and Technology of. Albin H. Warth (1947)	6	374
Wool, The Story of. William F. Leggett (1947)	6	375
Wool Hand Book, American. 2nd Enlarged Ed. Werner Von Bergen and Herbert Mauersberger (1948)	9	561

Abstracts

	No.	Page
Abrasion, Taber yarn-sheet test (Scroggie, Hicks)	12	760
Absorption: *See* **Cellulose; Color; Color and constitution; Dyeing; Dyes; Glucose structure; Jute; Paper; Polymers; Sorption; Spectrophotometry**		
Abstracting		
Abstracting research reports (Stork, Cousins)	10	642
See also **Reproduction; Research; Technical literature**		
Acceptance sampling by variables, with special reference to case in which quality is measured by average or dispersion (Curtiss)	1	66
Acetic acid: *See* **Acetic acid recovery; Sorption**		
Acetic acid recovery—Quantitative estimation as acetic acid of acetyl, ethylidene, ethoxy, and α-hydroxyethyl groups (Lemieux, Purves)	10	636
Acetolysis: *See* **Cellulose**		
Acetone: *See* **Cellulose; Cellulose acetate**		
Acetyl: *See* **Acetic acid recovery**		
Acetylation: *See* **Cellulose; Sorption**		
Acetylene chemistry (Anon.)	2	136
Acid-hydrolysis: *See* **Cellulose fibers**		
Acids: *See* **Acetic acid recovery; Amino acids; Cellulose; Color; Cotton; Dyes; Nylon; pH; Polyamides; Polymers; Resins; Soaps; Softeners; Sorption; Synthetic fibers; Thioglycolic acid; Wool; Wool wax**		
Acrylic polymers: *See* **Polymers**		
Acrylonitrile: *See* **Synthetic fibers**		
Adhesion: *See* **Polymers**		
Adhesives		
Industrial adhesives (Rose)	10	642
See also **Gums**		
Adipic acid: *See* **Nylon**		
Adiponitrile: *See* **Nylon**		
Adsorption: *See* **Dyes; Polymers; Sorption; Wool**		
Ageing: *See* **Ageing cabinets; Polymers; Viscosity**		
Ageing cabinets, accelerated, construction and operation (Lyle)	9	563
Agents: *See* **Processing agents**		
Air conditioning: *See* **Humidification; Mills and Milling**		
Air control: *See* **Opening, Openers**		
Air gage measures fiber fineness (Smith)	3	187
Alginate rayon: *See* **Rayon**		
Aliphatic acids: *See* **Softeners**		
Alkali: *See* **Cellulose; Dyes; Soaps**		
"American" system: *See* **Spinning**		
Amides: *See* **Dyes**		
Amines: *See* **Dyes**		
Amino acids		
Analytical determination of basic groups in amino acids and proteins (Grettie)	7	442
Quantitative chromatography of silk hydrolyzate (Mosley, Wyckoff)	7	442
Some fundamental problems in the amino acid analysis of proteins (Lugg)	8	504
See also **Nitrogen; Polyamides; Silk**		
Amplitude: *See* **Phase microscopy**		
α-amylase: *See* **Starch**		
Amylose: *See* **Starch**		
Aniline black: *See* **Dyeing**		
Animal fibers		
Bending modulus of animal fibers (Khayatt, Chamberlain)	12	760
Felting of animal fibers (Menkart, Speakman)	1 59; 5	322
See also **Bleaching; Fibrous proteins; Keratin; Shrinkproofing; Wool**		
Anti-crease: *See* **Shrinkage**		
Apparatus: *See* **Instruments**		
***L*-arabinose:** *See* **Glucose structure**		
Artificial fibers: *See* **Fibers; Health hazards; Wet strength**		
Ash content: *See* **Wool**		
Atomic configuration: *See* **Cellulose**		
Bags, textile (Anon.)	1	66
Balance: *See* **Osmotic balance**		
Barium number: *See* **Mercerization**		
Barrel: *See* **Weaving**		
Bases: *See* **pH**		
Bemberg: *See* **Spinning; Warping, Warps**		
Bending: *See* **Fiber bending**		
Benzene: *See* **Films (Interface 1); Viscosity**		
Benzene hexachloride: *See* **Boll-weevil**		
Benzyl benzoate-dibutyl phthalate: *See* **Insecticides**		
Binder twine: *See* **Paper**		
"Bird's eyes": *See* **Weaving**		
Birefringence: *See* **Rubber**		
Bisulfite compounds: *See* **Thioglycolic acid**		
Bleaching		
Bleaching of animal fibers by modern methods (Wilkinson)	6	380
Characteristics of chlorite chemistry; its use for bleaching (Muus, Refn)	4	250
Chemistry and bleaching of linen (Turner)	1	60
Continuous bleaching of cotton cloth (Mairesse)	6	380
Determination of water in bleaching powder (Goldenson, Danner)	10	637
Pilot-plant bleaching of cotton fabrics (Kettering, Berard)	4	250
See also **Dyeing; Stripping; Water**		
Blends		
Cotton classification plus inventory equals uniform blends (Carter)	6	384
"Fifty-fifty" viscose-acetate yarns in dress fabrics (Birch)	7	445
Mixing and blending (Walker)	9	571
Nylon in the wool fabric field (Anon.)	6	382
Ply blend tropicals popular (Anon.)	4	254
Preparation of size mixes (Elizer)	11	700
Viscose- and wool-blend flannel (Anon.)	4	254
See also **Casein; Drafting; Dyeing; Hosiery; Nylon; Weaving**		
Bobbins		
Automatic bobbin refinisher (Anon.)	4	258
Horsfall bobbin-stripping machine (Horsfall)	11	704
See also **Roving levelness**		
Boll-weevil control		
Benzene hexachloride and chlordan to control cotton boll-weevil (Kulash)	7	446
Boll-weevil control with chlordan, benzene hexachloride, and calcium arsenate dusts (Brett, Rhoades)	5	321
Bombardment: *See* **Rubber**		
Boyce knotter: *See* **Weaving**		
Brand names for profit	3	197
Brass: *See* **Wastes**		
Breakage		
Mathematical description of certain breakage mechanisms leading to the logarithmico-normal distribution (Epstein)	9	566
See also **Electronics; Spinning**		
Breaking strength: *See* **Clamp design**		
Builder: *See* **Spinning**		
Burlap (U. S. Tariff Commission)	3	197
Butyrate: *See* **Coatings**		
Buyer survey, women's preferences among selected textile products (Bur. Agricultural Economics)	12	766
Cake drying: *See* **Rayon**		
Cake dyeing: *See* **Dyeing**		
Calcium arsenate dusts: *See* **Boll-weevil**		
Calorimeter: *See* **Moisture determination**		
Cameras		
Rapid method for preparing powder camera specimens with cellulose acetate capillary tubes (Beu, Cloassen)	8	505
X-ray diffraction camera for micro-techniques (Chesley)	4	248
See also **Films; Filters; Printing; Sample holders**		
Carbohydrates: *See* **Viscosity**		
Carbon disulfide poisoning: *See* **Health hazards**		
Carbonizing: *See* **Mills and Milling**		
Carbowax—Surface tension of polyoxyethylene glycol solutions (Couper, Eley)	11	693
Carboxymethylcellulose		
Effect of sodium carboxymethylcellulose on synthetic detergent studies (Vaughn, Smith)	12	761
Sodium CMC in synthetic detergents (Vaughn, Tremain)	12	761
Card clothing		
Metallic or flexible wire card clothing (Walker)	4	254
Types of card clothing (Audley)	6	385
Carding, Cards		
Increasing the efficiency of the woolen carding department (Townend)	9	570
Modern methods of woolen carding (Wright, Brearley)	9	569
New small-pattern wadding card (Anon.)	4	254
Overhauling the card (Anon.)	4	255
Production rates in carding of short-staple "Fibro" on revolving flat card (Morton, Shahin)	1	63
Recent trends in woolen carding (Wright, Brearley)	1	63
Regularity of laps (Anon.)	5	323
Sliver condensing at the card (Anon.)	4	261
Theory and function of the card (Anon.)	4	255
Tomorrow's card—What will it be? (Anon.)	3	192
Use of punched card techniques in coding of inorganic compounds (Bailar, Heumann, Seiferle)	9	571
Waste thread removal on woolen cards (Anon.)	3	192
What weight lap (Anon.)	5	323
Woolen carding (Anon.)	7	445
Worsted carding (Anon.)	9	570
See also **Mills and Milling; Woolens**		
Cardroom "snowballs"—Potential source of end breaks (Anon.)	5	322
Carpets: *See* **Weaving; Yarns**		
"Cascade" process: *See* **Warping, Warps**		
Casein		
Identification of casein in blends and other fibers	1	56
See also **Gauze**		
Castor oil: *See* **Synthetic fibers**		
Catalysts: *See* **Cellulose acetate**		
Cation exchange: *See* **Cellulose**		
Cell: *See* **Conductivity cell**		

	No.	Page
Cellophane: *See* **Cellulose acetate**		
Cellulose		
Acetylation of cellulose: II: Formation of primary acetylcellulose soluble in acetone (Araki)	8	510
*Action of alkali upon cellulose (Schaeffer)	4	261
Analysis of mixtures of monosaccharides obtained by hydrolysis of cellulose and related products (Roudier)	5	317; 6 376
Atomic configuration of cellulose (van der Wyck, Meyer)	4	248
Cationic exchange reactions of cellulose and their effect on insulation resistance (Church)	5	319
Crystallinity of hydrocellulose (Brenner, Frilette, Mark)	10	637
Enzymatic hydrolysis of cellulose by *Coniophora cerebella* (Nord, Vitucci)	1	58
Hydrated cellulose (Kubo)		
Mutual transitions of natural and hydrated celluloses IX. Transition from hydrated to natural cellulose by treatment with various compounds	8	506
Transformation of hydrated cellulose to natural cellulose X. Influence of ultrasonic waves on the transformation	12	760
Hydro- and solvolytic and intramolecular oxidation-reduction: I: Acetolysis of cellulose as solvolytic oxidation-reduction (Danilov, Pastukhov)	10	637
Hydrolysis of wood cellulose and decomposition of sugar in dilute phosphoric acid (Harris, Lang)	9	565
Kinetics of cellulose degradation and long-period structure of cellulose molecules (Schulz)	11	694
Laboratory estimation of cellulose for rayon manufacture (Centola, Pancirolli)	11	691
Molecular structure of cellulose and starch (Pacsu)	4	248
"Noble" cellulose and α-cellulose (Centola)	3	188
Phosphorylated cotton cellulose as a cation-exchange material (Jurgens, Reid, Guthrie)	8	506
Physical-chemical study of cellulose, viscose, and fibers (Castillo)	11	693
Reactivity of cellulose for viscose (Centola, Pancirolli)	11	694
Recent developments in cellulose and cellulose derivatives (Anon.)	11	703
Solubility of cellulose in mixtures of nitrogen tetroxide with organic compounds (Fowler, Unruh, McGee, Kenyon)	5	319
Some applications of ultracentrifugation to the study of salts of celluloseglycolic acids (Banderet)	6	378
See also **Carboxymethylcellulose; Cellulose acetate; Cellulose chemistry; Dyeing; Dyes; Fabrics; Oxidation; Oxycellulose; Polymers; Shrinkproofing; Sorption; Swelling**		
Cellulose acetate		
Cellulose acetate (Atsuki, Kagawa, Okada, Wakui)		
Part XII: Ripening of cellulose acetate with ZnCl as catalyst		
Part XIII: Influence of ripening temperature on hydrolysis velocity		
Part XIV: Relation between composition of ripening bath and hydrolysis velocity		
Part XV: Ripening of cellulose acetate with sulfuric acid as catalyst		
Part XVI: Velocity of hydrolysis and its mechanism		
Part XVII: Depolymerization of cellulose acetate during ripening	10	637
Cellulose acetate from wood cellulose (Malm)	1	58
Softening of viscose film (cellophane) in aqueous glycerol solutions (Danilov, Sokolovskil, Ecdokimova)	4	249
Structure of cellulose acetate molecules in acetone solution (Singer, Mark)	8	506
Water content of a thin film of regenerated cellulose and its thermal conductivity (Matano)	3	190
See also **Cameras; Cellulose; Dyeing; Dyes; Thermal Conductivity**		
Cellulose chemistry		
Hemicelluloses (Wise)	7	443
Phenolic constituents of wood (Pearl)	7	443
Proven chemistry of lignin (Brauns)	7	443
Review of natural coloring matters in wood (Shriner)	7	443
Structural analysis of the polysaccharides: gums and mucilages (White)	7	443
Structure and synthesis of gymnosperm lignin (Russell)	7	443
Unsolved cellulose problems (Heuser)	7	443
Wood resins (Harris)	7	443
Wood tannins (Flinn)	7	443
Cellulose esters, densities of (Malm, Genung, Fleckenstein)	1	58
Cellulose fibers		
Cellulose intercrystalline structure study by hydrolytic methods (Nickerson, Habrle)	1	58
Distribution of water in cellulose and other materials (Simha, Rowen)	12	762
Effect of grinding on the crystallinity of cellulose fibers, as indicated by acid-hydrolysis and other techniques (Nelson, Conrad)	11	696
Improvements in acid-hydrolysis method of determining crystallinity of cellulose (Nelson, Conrad)	11	696
Quantitative x-ray investigations on crystallinity of cellulose fibers (Hermans, Weidinger)	11	694
Rate of exchange of cellulose with heavy water (Frilette, Hanse, Mark)	12	760
Ratio of crystalline-amorphous regions in cellulosic fibers (Hermans)	11	694
Specific surface and electrokinetic potentials of cellulose fibers (Mason)	3	191
Swelling and solution mechanism of xanthated soda cellulose fibers (Schramek, Stenzel)	6	380
See also **Dyes; Oxycellulose; Swelling**		
Cellulose gels		
Deformation mechanism of cellulose gels (Hermans, Hermans, Vermaas, Weidinger)		
Part III: Changes in orientation on drying	5	319
Part IV: General relationship between orientation of the crystalline and that of the amorphous portion	7	443
Deformation of cellulosic gels; network of slightly flexible chains (Hermans)	11	694
Chain length: *See* **Polymers**		
Cheese drying: *See* **Gauze**		
Chemical process control with radioactivity (with tracer techniques) (Schreiber)	5	324
Chemistry: *See* **Acetylene chemistry; Bleaching; Cellulose acetate; Detergents; Dyeing; Laminates; Polymers; Silicones**		
Chlordan: *See* **Boll-weevil**		
Chloride: *See* **Polyvinylidene chloride**		
Chlorinated wool: *See* **Dyeing**		
Chlorination: *See* **Bleaching; Shrinkage**		
Chlorites: *See* **Bleaching**		
Chromatic aberration: *See* **Electron microscopy**		
Chromatography: *See* **Amino acids**		
Cibanone Orange R: *See* **Oxidation**		
Cibantine: *See* **Dyes**		
Clamp design, effect on fabric breaking strength (Kelly, Hays)	7	443
Clearers: *See* **Spinning mills**		
Cloth: *See* **Bleaching; Fabrics; Measurement; Rayon; Resistance**		
Clothing		
Functional clothes design (Scott)	10	642
See also **Card clothing; Dyeing; Fabrics; Insecticides; Measurement; Research; Weaving**		
Coatings		
Butyrate hot-melt coatings (Solo)	3	196
Characteristics and application of polyvinyl butyral coatings (Plumb)	1	62
See also **Oilcloth; Waterproofing**		
Coding: *See* **Carding, Cards**		
Collagen: *See* **Polymers (low-angle scattering)**		
Colloidal electrolytes: *See* **Titration**		
Colloidal solutions, effect of size, shape, and flexibility of solute molecules on properties of (Huggins)	7	443
Colloids: *See* **Electrophoresis; Viscosity**		
Color		
Apparatus for color measurement of dyed textiles (Heertjes, van den Heuvel, Lotichius)	9	563
Color engineering (Rahr)	7	448
Color measurements on colored fabrics (Heertjes, van den Heuvel, Lotichius)	5	317
Color order systems (Foss)	7	448
Description and specification of color (Evans)	7	447
I.C.I. standard observer and coordinate system and their use in studies of color of paper (Van den Akker)	7	448
Interrelation of color specifications (Nickerson)	7	448
Limiting colors due to ideal absorption and transmission bands (Godlove)	3	188
Lovibond color standards: crisis or challenge (Andrews)	5	319
New applications of color measurement in the dyeing of wool (Selling)	5	317
Papermaker's interest in color (Croup)	7	447
Relation of gloss to color (Hunter)	7	448
Specific color reaction for glucuronic acid (Dische)	6	376
See also **Cellulose chemistry; Dyeing; Dyes; Knitwear; Spectrophotometry; Staining**		
Color and constitution		
Absorption of light by chemical compounds (Bowen)	1	58
Color and constitution (Maccoll)	4	258
Combs		
Dabbing mechanism in Noble comb (Martin)	12	763
French comb, how to adjust it (Lewis)	11	703
Recent research on Noble combing (Townend)	4	255
Complex modulus: *See* **Animal fibers; Polymers**		
Compressibility: *See* **Fibrous materials; Rubber**		
Compressional behavior of textile materials (Finch)		
Part I: Measurement at constant rate of deformation	11	695
Part II: Measurement of compressional stress relaxation at constant deformation	11	695
Computer, electronic, for x-ray crystal-structure analyses (Pepinsky)	6	376
Condenser, waste prevention at drawing frame (Duple) (Anon.)	3	193
Condenser spinning: *See* **Cotton**		
Conductivity cell usable with viscous liquids, pastes, suspensions, wetted solids (Otto)	10	636
Coniophora cerebella: *See* **Cellulose**		
Consistency curve: *See* **Viscometry**		
Contamination: *See* **Electron microscopy**		
Copper: *See* **Wastes**		
Copper number: *See* **Pulps**		
Coprantine: *See* **Dyes**		
Cops: *See* **Spinning**		
Cordage		
British nylon cordage goes on wheels (Anon.)	4	258
U. S. cordage supply policy (Baldwin)	1	66
See also **Waterproofing**		

* Items marked with asterisk are reports from the Office of Technical Services, U. S. Department of Commerce.

	No.	Page
Cords: *See* **Fabrics**		
Corkscrew weaves: *See* **Weaving**		
Cost accounting: *See* **Cotton mills**		
Cotton		
Action of light on dyed and undyed cotton (Egerton)	5	323
Cotton, versatile textile fiber (Berkley)	11	695
Cotton cloth (U. S. Tariff Comm.)	9	570
Cotton grades (Brandt)	11	700
Cotton rebeaming (Anon.)	9	569
Degradation of untreated cotton fabrics exposed to weather in subtropical climate (Dean, Worner)	4	253
Discovering cotton (Smith, Buck)	5	321
The feeder is important (Walker)	8	510
Oiling of cotton (Paton)	10	640
Oiling of cotton (condenser spinning) (Anon.)	3	192
Predetermining the spinning characteristics of cotton (Bogdan)	10	640
Production per man hour in cotton manufacture (Marks)	5	323
Short harsh cotton (U. S. Tariff Comm.)	1	66
Sulfuric acid steep at elevated temperatures for gray cotton fabrics (Hudson, Waddle)	7	444
See also **Bleaching; Blends; Boll-weevil; Cellulose; Cotton economics; Cotton mills; Dyeing; Dyes; Fiber properties; Humidification; Insecticides; Mercerization; Mold; Opening, Openers; Oxidation; Printing; Resistance; Shrinkage; Spinning; Spinning mills; Storage; Testing; Textile industry; Textile machinery; Warping, Warps; Weathering; Weaving; Yarns**		
Cotton cellulose: *See* **Oxidation**		
Cotton economics—Agricultural and economic problems of the cotton belt: hearings before Special Subcommittee on cotton	2	139
Cotton mills		
Cost knowledge is vital in growth toward efficiency (Sawyer)	3	197
See also **Opening, Openers**		
Cotton system: *See* **Rayon; Spinning; Warping, Warps**		
Cottonseed: *See* **Cotton**		
Counting, Counts: *See* **Moisture determination; Wool; Yarns**		
Cragoe L function: *See* **Viscosity**		
Crease resistance: *See* **Shrinkage**		
Creep: *See* **Rayon**		
Crepe: *See* **Rayon; Warping, Warps**		
Cross bonds: *See* **Keratin**		
Crystal-structure analysis: *See* **Computer; Polymers**		
Crystallinity: *See* **Cellulose; Cellulose gels; Cellulose fibers; Electron microscopy; Polyamides**		
Crystallization: *See* **Polymers**		
Cuprammonium-process: *See* **Dyes; Spinning**		
Curling: *See* **Hair**		
Cystine disulfide: *See* **Wool**		
Dabbing mechanism: *See* **Combs**		
Dark-field method: *See* **Electron microscopy**		
Decamethylenediamine: *See* **Synthetic fibers**		
Decomposition by light: *See* **Diazo-compounds**		
Defects		
Bothersome gray goods defects (Anon.)	3	196
Defects in woolen and worsted yarns and fabrics (Pickles)	11	702
Seamless-hose streaks can be eliminated (Arrowood)	11	702
Deformation		
Theory of combined plastic and elastic deformation with particular reference to a thick tube under internal pressure (Hill, Lee, Tupper)	9	563
See also **Cellulose gels; Compressional behavior; Rubber**		
Degradation: *See* **Cellulose; Cotton; Polymers; Rayon; Starch; Tire cord**		
Degumming: *See* **Ramie**		
Denaturation: *See* **Silk**		
Densities: *See* **Cellulose esters; Nylon**		
Depolymerization: *See* **Cellulose acetate**		
Design: *See* **Clothing; Knitwear**		
Desizing: *See* **Wastes**		
Detergency		
Detergency studies (Utermohlen, Wallace)	10	637
Simple laboratory method for evaluation of detergency (Kelly, Gunther)	4	247
Detergents		
Chemistry and application of detergents (Hill)	1	61
New concepts and trends in the detergent field (Schwartz)	10	639
Nonionic detergents (Barker)	10	639
Nonionic detergents in the scouring of raw wool (Borghetty)	9	567
Studies on detergent power (Sisley)	4	247
Synthetic detergents and surface activity (Snell)	4	252
See also **Carboxymethylcellulose; Detergency; Processing agents; Scouring; Solubilization**		
Diaphragms: *See* **Electron microscopy**		
Diazo-compounds, estimation of, through decomposition by light (Spencer, Taylor)	4	247
Dielectric measurement: *See* **Measurement**		
Dielectric properties: *See* **Measurement; Polymers**		
Dienes: *See* **Polymers**		
Diffusion		
On a generalization in the diffusion theory (Lamm)	9	566
See also **Dyes**		
Dispersion: *See* **Acceptance sampling**		
Distillation: *See* **Bleaching**		
Djenkolic acid: *See* **Wool**		
Doubling machine: *See* **Twisting, Twists**		
Drafting		
Development of long draft (Anon.)	4	255
Fiber control during drafting (Anon.)	4	255
New pin drafter speeds processing (Anon.)	4	258
Pin drafting unit for wool and blends (Anon.)	8	510
Drape: *See* **Measurement**		
Drapemeter: *See* **Measurement**		
Draper loom: *See* **Weaving**		
Drawing: *See* **Worsted**		
Drawing frame: *See* **Condenser**		
Dry-cleaning: *See* **Dyes**		
Drying		
New high-speed drying unit for slashers (Anon.)	10	640
Researches in drying wool (Arend)	12	763
Textile drying methods compared (Anon.)	6	382
See also **Cellulose gels; Rayon**		
Duple condenser: *See* **Condenser**		
Dyeing		
Absorption isotherm for direct dyes (Crank)	1	61
Application of dyeing theory to dyeing practice (Abbot, Crook, Townsend)	7	444
Auxiliary products for dyeing (Wolff)	11	700
Basic research in coloring and finishing textiles (Crossley)	6	382
Cake dyeing of viscose rayon (Woodruff)	4	250
Chemistry of wool; its importance for textile industry (Nilssen)	6	378
Color measurements on colored fabrics (Heertjes, van den Heuvel, Lotichius)	5	317
Comparison between the changes in German and American practice (Fargher)	5	321
Dyeing, bleaching, and finishing equipment (Butterworth)	11	700
Dyeing fibers with substantive dyes (Lehembre)	8	508
Dyeing nylon (Wittwer)	11	700
Dyeing of wool damaged by exposure to light (Rosti)	1	61
Dyeing properties of chlorinated wool (Barritt, Elsworth)	6	381
Dyeing rayon in vat and direct (Anon.)	7	444
Dyeing studies at elevated temperatures (Royer, Zimmerman, Walter, Robinson)	12	762
Dyeing viscose staple (Anon.)	8	508
Effect of electrical charge in application of dyestuffs (AATCC)	9	568
Factors affecting the dyeing of viscose rayon: Parts I and II (Preston, Pal, Kapadia)	6	381
Fast coloration of cellulose acetate rayon, with reference to shades of good fastness to scouring (Mellor, Olpin)	5	320
Fastness to subsequent processing (of dyed or printed goods) (Krahenbuhl)	9	568
Industrial dye vat control (Blezzard)	5	320
Influence of liquor flow rate in package dyeing (Armfield)	4	251
Latest in dyeing developments (Anon.)	4	250
Modern American dyeing practice (Clapham)	6	381
New method for measuring affinity of the naphthazoles (Laneres)	1	56
New trends in dyeing (Trepka)	11	700
Old dyers, old books, old methods: history of dyeing and finishing (Edelstein)	4	250
Processes and hints on scouring and dyeing of clothes containing cellulose acetate (Joly)	6	381
Proposed system for testing and evaluating fastness of dyestuffs and dyeings (Thommen)	5	318
Rayon yarn dyeing (Joerger)	4	250
Reserve and two-color effects for synthetic fiber mixtures (Brunschmid)	7	444
Role of chemistry in development of dyeing and bleaching (Edelstein)	9	567
Second report of fastness tests committee (Anon.)	11	692
Significance, from point of view of research technique and industrial history, of aniline black in textile printing and dyeing (Dax)	6	380
Some aspects of electro-chemistry of dyeing (Neale)	5	319
*Survey of German woolen and worsted dyeing and finishing trades (Hopkinson)	1	65
Theory and practice in wool dyeing (Goodall)	3	190
Tippy dyeing of wool and its control (AATCC)	4	250
*Wool, preparing, dyeing, and finishing (discussions with I. G. personnel) (Samuels)	4	261
See also **Bleaching; Color; Dyes; Finishing; Hosiery; Mills and Milling; Printing; Shrinkproofing; Water; Yarns**		
Dyes		
Alkali sensitivity of developed naphthol AS dyes containing nitro groups (Csuros)	6	380
Combination of acid dyes with amine and amide groups in nylon fiber (Carlene, Fern, Vickerstaff)	5	320
Coprantine union dyes (Egger)	9	567
Detection of dyes, in particular, cellulose acetate dyes, on nylon (Lanczer)	1	56
Difficulties in detection of artificial color (Roleff)	4	250
Diffusion of direct dyes into cellulose: Surface potential theory of effect of salt and temperature on apparent diffusion coefficient (Crank)	4	251
Heats of reaction and affinities of direct cotton dyes for cuprammonium rayon, viscose rayon, and cotton (Marshall, Peters)	6	377
Indigenous Indian dyes (Kirtikar)	4	251
Instrumental methods applied to dyestuff testing (Anon.)	5	317
Measurement of affinity of monobasic acid dyes for wool (Lemin, Vickerstaff)	4	248
Natural dyes and synthetic dyes applied to wool (Baron)	6	381
New process for development of Cibantine (Indigosol) dyes by steaming (Haller)	4	251
New reagent for identification of vat dyes; acidified potassium permanganate (Derrett-Smith, Gee)	4	248

	No.	Page
Note on changes in cellulose acetate dyes caused by perfume or alcohol spots in presence of organic solvents (Terrier)	4	252
Physicochemical phenomena occurring in dyeing of cellulose fibers with direct (cotton) dyes (Schaeffer)	9	565
Polymethine dyes (Wahl)	11	700
Proposed system of examination, evaluation, and classification of fastness of dyes and dyeing (Thommen)	11	700
Second report of committee appointed by council to discuss dyeing properties of direct cotton dyes	10	639
Selection and use of fluorescent dyes on textile materials (Mansell)	10	639
Some miscellaneous applications of dyes (Gill)	12	762
Structure and absorption of hydroxyazo dyes (Ramart-Lucas, Martynoff)	11	696
Tendering of vat-dyed textile materials on exposure to light (Turner)	4	252
Washing-out of cellulose-acetate dyes by solvents used in dry-cleaning (Sellier, Vandeputte)	4	251
See also **Bleaching; Color; Dyeing; Finishing; Jute; Paper; Printing; Staining; Spectrophotometry; Stripping**		
Dynamic properties of linear structures: *See* **Measurement**		
Elasticity		
Development of an elastic performance coefficient in tension (Hamburger)	8	507
Theory of high elasticity (Huggins)	8	506
See also **Deformation; Macromolecules; Nylon; Rubber; Stress; Tire cord; Viscosity**		
Elastomers: *See* **Polymers; Rubber**		
Electrical charge: *See* **Dyeing**		
Electro-chemistry: *See* **Dyeing**		
Electrokinetic potentials: *See* **Cellulose fibers**		
Electron microscopy		
Chromatic aberration and resolving power in electron microscopy (Ramberg, Hillier)	12	759
Dark-field electron microscopy: I: Studies of crystalline substances in dark-field (Hall)	7	442
Electron-microscopy specimen punch (Grey)	11	692
Films, resistant to organic solvents, for use in electron microscope (Ellis)	9	564
Investigation of specimen contamination in electron microscope (Hillier)	9	564
Particle "growth" in electron microscope (Cosslett)	9	564
Use of diaphragms in electron microscope (Ellis)	9	564
Electronics applied to textiles (Anon.)	4	260
Electrophoresis in an ultracentrifugal field (Lang, Van Winkle, Wesley)	3	189
Electroplating: *See* **Wastes**		
Eliminators: *See* **Static eliminators**		
Emulsions: *See* **Conductivity cell; Scouring**		
End breakages: *See* **Spinning**		
End effect: *See* **Viscometry**		
End groups: *See* **Polymers**		
Ends-down tests: *See* **Spinning**		
Enzymes in textile processing (Wood)	3	191
Epsilon-caprolactum: *See* **Polyamides**		
Equipment: *See* **Textile machinery**		
Ethoxy: *See* **Acetic acid recovery**		
Ethylene glycol: *See* **Scouring**		
Ethylidene: *See* **Acetic acid recovery**		
"Eulan": *See* **Mothproofing**		
Evaporation: *See* **Drying**		
Exposure to light: *See* **Dyeing; Dyes**		
Extension test: *See* **Fibers**		
Eyring's theory: *See* **Paper; Viscosity**		
Fabrics		
Cloths from fibers (tear strength) (Gara)	10	640
Fabrics of the future (Anon.)	8	509
Filtration through fabrics made of cellulose and synthetic continuous fibers (Alibert)	5	321
Longitudinal sectioning of cords and fabrics (Bailey)	7	442
Manufacture of web fabrics (Goldman)	4	253
New synthetic upholstery cloth ("Tygan") (Anon.)	10	641
New wool fabrics (Anon.)	4	253
See also **Abrasion; Ageing cabinets; Bleaching; Blends; Burlap; Cellulose gels; Clamp design; Color; Cotton; Defects; Dyes; Fabric recovery; Fiber identification; Fibers; Filtration; Finishing; Flammability; Gauze; Insecticides; Leather; Measurement; Mold; Nylon; Oilcloth; Paper; Plastics; Printing; Rayon; Research; Resins; Resistance; Selvage imperfections; Shrinkage; Spinning; Swelling; Testing; Waterproofing; Wear-testing; Web fabrics; Wetting; Wool; Woolens; Worsted; Yarns**		
Fadeometer: *See* **Ageing cabinets; Wool**		
Fading lamps: *See* **Paper**		
Fastness test: *See* **Dyeing; Dyes; Paper**		
Fats: *See* **Oils; Soaps**		
Fatty acids: *See* **Soaps; Synthetic fibers**		
Feeder: *See* **Cotton**		
Fehling solution: *See* **Pulps**		
Felting: *See* **Animal fibers**		
Felts: *See* **Animal fibers; Resistance**		
Fertilizers: *See* **Hemp**		
Fiber bending		
Critical measuring technique for determining fiber bending (Klipper)	11	701
See also **Animal fibers; Polymers**		
Fiber control: *See* **Drafting**		
Fiber damage: *See* **Dyeing**		
Fiber identification of textile materials (Anon.)	11	692
Fiber orientation in paper (Danielsen, Steenberg)	1	57
Fiber properties		
Fiber properties and wear resistance of garments (Anon.)	10	640
Fiber properties determine combed-yarn quality (U. S. Dept. Agr.)	2	137
See also **Cellulose fibers; Cotton; Elasticity; Friction; Jute; Polymers; Stress; Wet strength**		
Fiber structure: *See* **Cellulose; Cellulose fibers; Cotton; Fibers; Keratin; Polymers; Polythene; Rubber; Synthetic fibers**		
Fiber surface: *See* **Cellulose fibers**		
Fiber testing: *See* **Testing**		
Fibers		
Cumulative extension test for plasticity in textile fibers (Meredith, Peirce)	11	692
Fibers and fabrics (structure) (Chadwick)	11	701
*First meeting of cooperative group for textile fibers, June 28, 1940	1	64
Form of fiber molecules in solution (Kuhn)	5	320
Status of fiber plant industry in Latin America (Robinson, Bergen)	9	570
Trends in consumption of fibers in U. S., 1892–1946 (Evans, Meadows)	12	766
See also **Adsorption; Air gage; Animal fiber; Blends; Burlap; Casein; Cellulose fiber; Cordage; Cotton; Detergents; Drafting; Dyeing; Dyes; Elasticity; Electron microscopy; Fabrics; Fiber bending; Fiber identification; Fiber orientation; Fiber properties; Fiber structure; Fibrous materials; Filtration; Flax; Friction; Health hazards; Hemp; Jute; Kenaf; Keratin; Laminates; Moisture determination; Nylon; Paper; Polymers; Polypeptides; Protein fibers; Proteins; Ramie; Rayon; Research; Resistance; Shrinkage; Silk; Sorption; Spinning; Staining; Storage; Synthetic fibers; Testing; Textile industry; Thixotropic visco-elastic system; Tow-to-top; Twisting, Twists; Vinyon N; X-ray diffraction; Wastes; Wet strength; Wool; Wool fibers; Yarns**		
Fibro: *See* **Carding, Cards**		
Fibroin: *See* **Silk**		
Fibrous materials, over-all specific volume, compressibility, and resilience of (Rees)	12	759
Filaments: *See* **Tire cord**		
Films		
Eliminating "paper grain" from x-ray diffraction films (Beu)	6	377
Films at oil-water interface (Hutchinson)	11	693
Textile films—index (Anon.)	3	197
See also **Cameras; Electron microscopy; Filters; Printing; Sample holder**		
Filters in photography (Smith)	1	57
Filtration: *See* **Fabrics**		
Fine structure: *See* **Air gage; Polythene**		
Finishing		
Fabric finishing materials (Hirst)	11	699
New Monsanto finishes announced (Anon.)	11	699
Some problems concerning textile finishing with starch (Jensen)	11	699
Study of finishing treatments, applied to sulfur black-dyed cotton textiles, for protection of fiber during storage (Anon.)	4	252
See also **Bobbins; Dyeing; Hosiery; Ranges; Rayon; Resins; Shrinkproofing; Storage; Tension; Testing; Weaving; Wool**		
Fischer reagent: *See* **Water determination**		
Flameproofing: *See* **Plastics**		
Flammability varies with type test and fabric (Sandholzer)	5	318
Flannel: *See* **Blends**		
Flax		
Flax from the Northwest in industry (Moore)	11	700
Flax in Australia (Anon.)	9	570
Water-retting of flax: résumé of investigations of 1940–1945 (Greenhill, Couchman)	2	137
Flow: *See* **Deformation; Viscosity**		
Fluorescent dyes: *See* **Dyes**		
Flyer spinning: *See* **Spinning**		
Food industry: *See* **Nylon**		
Formaldehyde: *See* **Wool**		
Fractionation: *See* **Lignin**		
Fracture		
Mechanism of fracture of glass and similar brittle solids (Taylor)	11	698
Statistical aspects of fracture problems (Epstein)	6	378
Friction		
Measurement of friction between single fibers: Frictional properties of wool fibers measured by fiber-twist method (Lindberg, Gralén)	8	504
See also **Shrinkproofing**		
Fumaric acid: *See* **Resins**		
Fungicides: *See* **Resistance**		
Gases: *See* **Polymers**		
Gauze, treated, use for drying pot cheese and casein (Vorob'ev)	4	258

	No.	Page
Geiger counters: *See* **X-rays**		
Gels: *See* **Cellulose gels; Conductivity cell**		
German woolen industry: *See* **Dyeing; Woolens**		
Gill: *See* **Leather**		
Glass		
Thin glass window to withstand high pressures (Seren)	7	442
See also **Fracture**		
Glass fibers: *See* **Laminates**		
Gloss: *See* **Color**		
Glucose structure—Open chain sugars: Absorption in ultraviolet of *D*-glucose and *L*-arabinose in acid solution (Pacsu, Hiller)	11	697
Glucuronic acid: *See* **Color**		
Glyceride: *See* **Softeners**		
Glycerin in textile processes (Anon.)	4	252
Glycerol: *See* **Cellulose acetate; Lactolin**		
Glycolates: *See* **Cellulose**		
Gray goods: *See* **Defects; Fabrics**		
Grease: *See* **Lubricants; Soaps; Wastes**		
Grex numbering system: *See* **Yarns**		
Grinding: *See* **Cellulose fibers**		
GR-S: *See* **Viscosity**		
Gums		
Chemistry of some plant gums and mucilages (Hirst, Jones)	1	66
See also **Adhesives; Cellulose chemistry**		
Hair, curling of, under asymmetric stresses (Wright)	7	444
Halowax: *See* **Health hazards**		
Halsey's theory: *See* **Paper**		
Harness: *See* **Weaving**		
Health hazards		
Artificial fibers industry and its dangers (Auffret)	9	571
Carbon disulfide poisoning in rayon staple fiber plants in Poland (Paluch)	6	385
Hepato-toxic effects following occupational exposure to Halowax (chlorinated hydrocarbons) (Strauss)	7	446
Parkinsonian trembling in a workman exposed to carbon disulfide vapors (Desoille, Gaultier, Goulene, Assouly)	9	571
Hemicelluloses: *See* **Cellulose chemistry; Jute**		
Hemp, effect of fertilizers on chemical composition and quality of dew-retted fiber (Hessler)	5	322
Hexadecyl 3-hydroxy-2-naphthoate: *See* **Waterproofing**		
Horsfall: *See* **Bobbins**		
Hosiery		
Automatic hosiery machines (Anon.)	12	765
Circular hosiery machines (Shinn)	11	703
Shrinkproofing, dyeing, and finishing men's hosiery of wool and nylon blends (Hartquist)	7	444
Socks from nylon staple (Anon.)	10	641
Synthetics major problem in hosiery dyeing (Hartquist)	10	639
See also **Defects**		
Humidification		
Humidification and air conditioning (Parks)	12	766
Humidification cuts picker-room fires (Shepherd)	12	766
Hydrocarbons: *See* **Health hazards**		
Hydrocellulose: *See* **Cellulose**		
Hydrogen bonding agents: *See* **Polymers**		
Hydrolysis: *See* **Cellulose; Cellulose acetate; Cellulose fibers; Soaps; Synthetic fibers**		
Hydrolyzate: *See* **Amino acids**		
Hydro-solvolytic oxidation: *See* **Cellulose**		
Hydrosulfites: *See* **Stripping**		
Hydroxyazo dyes: *See* **Dyes**		
α-hydroxyethyl: *See* **Acetic acid recovery**		
Hydulignum: *See* **Wood**		
Hypochlorite treatment: *See* **Wastes**		
Hysteresis: *See* **Tire cord**		
I.C.I. Standard Observer: *See* **Color**		
Identification of textile materials: *See* **Fiber identification**		
Impregnation: *See* **Paper**		
Indigosol: *See* **Dyes**		
Infrared		
Infrared instrumentation and techniques (Williams)	7	442
See also **Polymerization; Polypeptides**		
Insecticides		
Benzyl benzoate-dibutyl phthalate mixture for impregnating clothing (Snyder, Morton)	5	321
Insecticides for control of thrips in cotton (Fletcher, Gaines, Owen)	5	321
See also **Cotton**		
Instruments: *See* **Color; Dyes; Electron microscopy; Electrophoresis; Fabric recovery; Infrared; Measurement; Printing; Sample holder; Spectrophotometry; Stress**		
Insulation: *See* **Cellulose**		
"Integral": *See* **Yarns**		
Interfacial tension: *See* **Films**		
Interference microscopy (Merton)	10	636
Interplanar scale: *See* **Printing**		
Isotherms: *See* **Dyeing; Dyes**		
Jacquard loom: *See* **Warping, Warps; Weaving**		
Jute		
Future prospects of Indian jute industry (Jain)	9	570
Hemicelluloses of jute fiber (Sarkar, Mazumdar, Pal)	10	638
Jute fiber (Sarkar)	4	254
Strengths of different qualities of jute spun to different grists in relation to twist factors (Chakrabarti)	11	702
Studies on the absorption of methylene blue on jute fiber (Sarkar, Chatterjee)	12	762
Kellog loom: *See* **Weaving**		
Kenaf, fiber plant rival of jute (Crane)	3	192
Keratin		
Cross bond and polymerization reactions in keratin (Speakman)	1	60
Membrane potentials for keratin (Baxter)	3	189
Structure of fibrous keratin (Farrant, Rees, Mercer)	1	59
See also **Fibers; Polymers; Shrinkproofing**		
Kjeldahl method: *See* **Nitrogen**		
Knitwear		
Knit goods technology (Anon.)	5	323
Random effects in knitwear (Davis)	7	446
See also **Ranges; Shrinkage; Textile machinery; Wool**		
Lactolin as substitute for glycerol in textile industry (Belani)	5	321
Laminates		
Chemical resistance of phenolic laminates (Tyrie)	3	196
Laminated materials of artificial resin with glass fibers (Bollenrath)	10	641
Lamination: *See* **Wood**		
Lamps: *See* **Paper**		
Lancashire loom: *See* **Weaving**		
Langmuir isotherm: *See* **Dyeing**		
Lanthionine: *See* **Wool**		
Lap: *See* **Carding**		
Latex		
Latex particle sizes as determined by soap titration and light-scattering (Klevens)	3	187
Latex patents (Stevens)	10	642
Laundering: *See* **Detergents; Rayon; Shrinkage**		
Lay calculations: *See* **Roving levelness**		
Leathers, life of gill box (Anon.)	5	324
Levelness: *See* **Roving levelness**		
Light: *See* **Color and constitution; Cotton; Diazo-compounds; Dyeing; Dyes; Light-diffraction; Light-scattering; Paper; Rayon**		
Light absorption: *See* **Color and constitution**		
Light-diffraction by cellulose acetate yarn (Martin)	9	565
Light-scattering		
Scattering of light by solutions of polymers (Doty)	7	444
Symbols and definitions involved in light-scattering equations (La Mer, Barnes)	3	189
See also **Latex**		
Lignin		
Diffusion analysis of refined lignin sulfonic acid (Olleman, Pennington, Ritter)	11	698
See also **Cellulose chemistry**		
Linear structures: *See* **Measurement**		
Linen: *See* **Bleaching**		
Liquids: *See* **Polymers**		
Liquor flow: *See* **Dyeing**		
Literature searches: *See* **Patents**		
Longitudinal sectioning: *See* **Fabrics**		
Looms: *See* **Weaving**		
Lovibond: *See* **Color**		
Lubricants, Lubrication		
Lubrication of textile machinery (Puig)	3	196
See also **Cotton; Glycerin; Soaps; Warping, Warps**		
Luster: *See* **Yarns**		
Lyophilic colloids: *See* **Viscosity**		
"Macro" patent: *See* **Weaving**		
Macromolecules		
Fundamentals of plastic and elastic phenomena in macromolecular materials (Houwink)	7	444
See also **Molecular weight; Steric hindrance**		
Maleic acid: *See* **Resins**		
Market research: *See* **Research**		
Measurement		
Method for the absolute measurement of dynamic properties of linear structures at sonic frequencies (Lyons, Prettyman)	11	691
Microwave dielectric measurements (Dakin, Works)	9	563
New simplified form of the Drapemeter (Skinkle, Moreau)	4	247
Resonant cavities for dielectric measurements (Works)	6	376
Vacuum properties of synthetic dielectrics (Hogg, Duckworth)	10	636
See also **Carbohydrates; Color; Compressional behavior; Detergency; Dyeing; Dyes; Friction; Polymers; Spectrophotometry; Starch; Stress; Tackiness meter; Viscosity; X-rays**		
Mechanical properties: *See* **Polymers**		
Mechanization: *See* **Textile machinery**		
Mercerization and the barium number (Edelstein)	11	699
Medley system: *See* **Spinning**		
Melting points: *See* **Polymers**		
Mercuric acetate: *See* **Shrinkproofing**		
Methylene blue: *See* **Jute**		
Microorganisms: *See* **Resistance; Wastes**		
Microscopy		
Wool study simplified by microscopy (Anon.)	11	692
See also **Electron microscopy; Interference microscopy; Phase microscopy**		
Mildew preventives (Lesser)	2	138
Mills and Milling		
Air conditioning in textile mills (Howlett)	4	258
Carding and spinning discussion (by Southern mills) (Anon.)	12	763

	No.	Page
Mill construction and layout (Asbury)	12	766
Milling and carbonizing faults (Anon.)	1	62
Textile auxiliary equipment (Anon.)	11	704
See also **Cotton mills; Humidification; Spinning mills; Testing; Wool**		
Mixing, Mixes: *See* **Blends**		
Moisture determination		
Calorimetric investigation of moisture in textile fibers (Magne, Portas, Wakeham)	1	57
Moisture and worsted spinning: regain factor (Audley)	11	693
New electric method for determining moisture content (Boeke)	1	57
See also **Wetting; Wool**		
Mold, factors affecting the growth on cotton fabrics and related materials (Illman, Weatherburn)	3	191
Molecular structure: *See* **Cellulose**		
Molecular weight		
New method of determining molecular-weight distribution (Breazeale)	6	376
New methods of determining molecular weights from data of the ultracentrifuge (Archibald)	9	564
See also **Light-scattering; Polymers; Polystyrene**		
Monobasic acid dyes: *See* **Dyes**		
"Monofilizing": *See* **Warping, Warps**		
Monosaccharides: *See* **Cellulose**		
Mordant dyes: *See* **Printing**		
Mothproofing agents, modern; development of "Eulan" (Stötter)	6	385
Mucilages: *See* **Cellulose chemistry; Gums**		
Mule spinning: *See* **Spinning**		
Naphthazoles: *See* **Dyeing**		
Naphthol: *See* **Dyes**		
Nelson continuous process: *See* **Spinning**		
Nitro groups: *See* **Dyes**		
Nitrogen		
Critique of nitrogen determinations in amino acids and proteins by Kjeldahl method (Reith, Wansink)	9	566
See also **Sorption**		
Nitrogen tetroxide: *See* **Cellulose**		
"Noble": *See* **Cellulose**		
Noble combing: *See* **Combs**		
Nonionic detergents: *See* **Detergents**		
Numbering systems: *See* **Yarns**		
Nylon		
Density of undrawn, drawn, and annealed nylon filaments (Black, Dole)	11	698
Elastic properties of nylon 66 (Navarra)	1	62
New industrial application for nylon (Anon.)	9	571
Nylon (Putnik)	11	698
Nylon in the food industry (Trevor)	6	385
Nylon processing before weaving (Anon.)	11	700
Processing nylon staple on woolen machinery (Bennet)	10	641
Synthesis of intermediates for nylon (Ohashi, Mitzutani)	8	505
Part I: Synthesis of adipic acid		
Part II: Synthesis of adiponitrile		
See also **Blends; Cordage; Dyeing; Dyes; Hosiery; Polyamides; Polymers; Spinning**		
Odors, device measures perspiration (Osmometer) (Anon.)	4	259
Oilcloth pioneers in Maine (Bragdon)	1	63
Oiling: *See* **Cotton**		
Oils		
Inventory of oils and fats (Dean)	7	446
See also **Lubricants, Lubrication; Soaps; Viscosity**		
Olein: *See* **Scouring**		
Omega-amino acids: *See* **Polyamides**		
Opening, Openers		
Air control in opening and picking (Walker)	11	702
Cotton opening and picking (Carter)	8	510
Horizontal openers (Walker)	12	764
Improved synthetic fiber picking (Anon.)	12	764
Modern blowing room (Tarbuck)	12	764
New drive for vertical opener (Anon.)	12	764
See also **Humidification**		
Organosilicon: *See* **Waterproofing**		
Orientation: *See* **Cellulose gels; Fiber orientation**		
Orifice test: *See* **Swelling**		
Oscillograph: *See* **Weaving**		
Osmometer: *See* **Odors**		
Osmotic balance, improved (Enoksson)	11	693
Overbeating: *See* **Weaving ("Bird's eyes")**		
Oxidation		
Accelerated oxidation of cotton cellulose in presence of reduced Cibanone Orange R (Joshi, Nabar)	2	136
See also **Cellulose; Oxycellulose; Rosin**		
Oxycellulose defects can be avoided or cured (McMartney)	10	639
Packages: *See* **Spinning**		
Paper		
Paper as a visco-elastic body (Steenberg)		
Part I: General survey	1	59
Part II: Importance of stress relaxation in paper	1	59
Part III: Applicability of Eyring's and Halsey's theory to stress-strain diagram of paper (Ivarsson, Steenberg)	10	638
Problems of impregnation of paper yarns and paper fabrics (Rudolph)		
Part III: Strength properties of paper fabrics	11	701
Part IV: Effect of impregnation on moisture absorption of paper yarns and fabrics	11	701
Sulfite spinning paper for binder twine (Trenschel)	3	197
Textile fading lamps controlled with new light-sensitive paper (Anon.)	10	636
See also **Color; Fiber structure; Films; Viscosity**		
"Paper grain": *See* **Films**		
Parkinson's disease: *See* **Health hazards**		
Particle-size determination: *See* **Latex**		
Pastes: *See* **Adhesives; Conductivity cell; Gums**		
Patents		
Techniques employed in making literature searches for a patent department (Hoffman)	4	261
See also **Latex**		
Periodic Table, a modification (Simmons)	4	259
Permeability: *See* **Polymers; Sorption**		
Perspiration: *See* **Odors**		
pH		
Acids, bases, salts—pH (Bloomquist)	1	57
Saturated potassium hydrogen tartrate solution as a pH standard (Lingane)	5	318
See also **Soaps**		
Phase microscopy, control of amplitude in (Taylor)	1	57
Phenolic laminates: *See* **Laminates**		
Phosphoric acid: *See* **Cellulose**		
Photography: *See* **Cameras; Fabrics; Filters; Sample holder**		
Picking: *See* **Opening, Openers**		
Plasticity: *See* **Fibers**		
Plasticization: *See* **Thermoplastics**		
Plasticizers for rubbers and resins (Stickney, Cheyney)	11	704
Plastics		
Effect of simulated service conditions on plastics (Crouse, Caudill, Reinhart)	12	764
Fabric-reinforced plastics (Brown)	5	324
Low-density plastics (Clark, McCuistion, Cheyney)	6	385
Major advances in plastics during 1947 (Underwood)	10	642
Toxicity and flame-resistance of thermosetting plastics (Berger, Schrenk, Gale, Stewart, Sieffert)	4	259
See also **Bags; Chloride; Deformation; Flameproofing; Macromolecules; Nylon; Polyamides; Polymers; Polyvinylidene chloride; Resins; Thermoplastics**		
Ply-yarns: *See* **Yarns**		
Poisoning: *See* **Health hazards**		
Polyacrylonitrile: *See* **Synthetic fibers**		
Polyamides		
Experiments on crystallinity of polyamides (Bergmann, Fankuchen, Mark)	12	761
Plastic application of super-polyamides (Mingat)	7	444
Polyamides in Germany (Anon.)	10	642
Polymeric amides from epsilon-caprolactum (Hanford, Joyce)	11	698
Polymeric amides from omega-amino acids (Cox, Coffman, Martin, Mochel, Van Natta)	6	379
See also **Polymers; Resins**		
Polyelectrolytes: Poly-4-vinyl-pyridonium chloride and poly-4-vinyl-*N*-*n*-butyl-pyridonium bromide (Fuoss, Strauss)	11	699
Polyhexamethylene adipamide: *See* **Polymers**		
Polymerization		
Rapid polymerization of impregnations on tissues (Déribéré)	8	507
See also **Keratin; Polyamides; Polyelectrolytes; Polyvinyl chloride; Rosin**		
Polymers		
Chemistry of high polymers (Staudinger)	2	136
Detection of end groups in polymer molecules (Sully)	1	57
Determination of intrinsic viscosities of linear polymers in concentrated solution (Govaerts, Smets)	4	248
Determination of molecular weights of synthetic polymers (d'Or)	9	564
Dielectric properties of plastic materials (Mol)	8	506
Effect of strongly hydrogen bonding agents on some polar polymers (King)	8	507
Influence of structure on polymer-liquid interaction: Influence of nitrile groups (Salomon)	11	699
Low-angle scattering in polymers (Kratky)	11	691
Mechanical degradation of large molecules (Morris, Schnurmann)	5	320
Methods for measuring dynamic mechanical properties of rubber-like materials (Noble)	12	759
Permeability of high polymers (Houwink)	9	566
Permeability of polymers by gases and liquids (Houwink)	3	189
Physical methods of investigation of the structure of polymer molecules in solution (Tsvetkov)	5	318
Precipitating power as a function of molecular weight (Dobry)	4	249
Preparation and properties of rubberlike high polymers: Correlation between structure and properties of elastomers derived from dienes (Salomon, Koningsberger)	3	188
Purity and identity of polymers (Mark)	8	504
Refractometric determination of second-order transition temperatures in polymers: Acrylic, vinyl halide, and styrene polymers (Wiley, Brauer)	11	699
Röntgenographic studies of synthetic high-molecular compounds: Crystal structure of synthetic nylons; Change in structure; Heat treatment of alcohol; Crystal structure of polyamide; Röntgenographs of polystyrene (Fuchino, Yasui, Sakurada, Tanaka)	9	567
Solvation and swelling of cellulosic polymers (Clément)	10	637

	No.	Page
Spherulite formation in polyhexamethylene adipamide (Langkammerer, Catlin)	11	698
Statistical theory of highly polymerized chain molecules (Oka)	1	59
Statistical theory of rubberlike substances (polymer structure) (Kubo)	3	197
Structural and chemical aspects of ageing and degradation of vinyl and diene polymers (Mesrobian, Tobolsky)	3	189
Swelling of networks of polymers (Doty)	8	510
Theory of adhesion of high polymers to cellulose (McLaren, Hofrichter)	9	565
Thermodynamics of crystallization in high polymers		
Part II: Simplified derivation of melting-point relationships (Flory)	1	59
Part III: Dependence of melting points of poly-esters on molecular weight and composition (Evans, Mighton, Flory)	1	59
Volume effect of coiling molecules (Simha)	11	699
See also **Light-scattering; Molecular weight; Plasticizers; Sorption; Steric hindrance; Stress; Swelling**		
Polymethine: *See* **Dyes**		
Polyoxyethylene glucol: *See* **Carbowax**		
Polypeptides, natural and synthetic, infra-red spectra and structure of (Darmon, Sutherland)	2	136
Polysaccharides: *See* **Cellulose chemistry**		
Polystyrene		
Intrinsic viscosity-molecular weight relationship for polystyrene (Goldberg, Hohenstein, Mark)	3	190
Viscous flow of molten polystyrene (Spencer, Dillon)	10	639
"Viscous flow of molten polystyrene," by Spencer and Dillon (Dienes, Dexter)	11	693
See also **Polymers; Rheology**		
Polythene fine structure (Bryant)	4	249
Polyvinyl acetate: *See* **Polymers**		
Polyvinyl alcohol: *See* **Polymers**		
Polyvinyl butyral: *See* **Coatings**		
Polyvinylidene chloride (Staudinger)	5	324
Potassium hydrogen tartrate: *See* **pH**		
Potassium laurates: *See* **Soaps**		
Potassium permanganate: *See* **Dyes**		
Poumar numbering system: *See* **Yarns**		
Power factor and its improvement (Anon.)	10	642
Precipitation: *See* **Polymers**		
Pressing: *See* **Shrinkage**		
Printing		
Discharge-printed cotton fabric: Tendering (Taussig)	12	762
Printing on vinyl film (Robbins)	1	61
Self-printing x-ray diffraction interplanar scale (DeBretteville, Levin)	6	377
Some suggestions for screen printing by the urea process (Bingham)	6	382
Use of sodium dichromate in printing with mordant dyes (Matveev, Mokhova)	12	762
See also **Dyeing**		
Processes: *See* **Chemical process control; Dyeing; Glycerin; Static eliminator; Water**		
Processing: *See* **Detergents; Enzymes; Drafting nylon; Processes; Processing agents; Solubilization; Textile industry; Water**		
Processing agents		
Qualitative analysis of textile processing agents (Goldstein)	10	637
Theory and practice of textile-processing agents (Chwala, Martina)	3	190
Protein fibers (Anon.)	4	254
Proteins		
Artificial materials based on proteins (Koch)	10	642
Native protein (Wrinch)	8	510
See also **Amino acids; Keratin; Nitrogen; Silk; Synthetic fibers**		
Pulps, substitution of Fehling solution by a new homogeneous test solution (Cu nos. of bleached and unbleached pulps) (Noll)	11	691
Punch: *See* **Electron microscopy**		
Quality control		
Statistical methods of quality control in textile industry (Ramachandran)	11	704
Statistical quality control (Hamby)	4	259
Suggestions for quality control in spinning finer cotton yarns (Stone)	1	62
Radioactivity: *See* **Chemical process control**		
Ramie		
Degumming ramie by new Australian process (Prehn)	11	701
Ramie fiber and its by-products (Waldo)	11	701
Ramie today (Coss, Taylor)	11	701
See also **Silk**		
Ranges		
Efficiency and flexibility offered by finishing ranges (Rabold)	1	61
Handknitting wool ranges (Anon.)	7	446
Rayon		
Alginate rayon in waterproof cloths (Anon.)	7	445
Cake drying speeded by high-frequency current (Story)	7	446
Changes in rayon on exposure to light (Schäppi)	11	697
Crimped rayon staple use grows (Anon.)	7	445
Experimental study of creep of rayon (O'Shaughnessy)	11	695
Mechanical degradation of rayon fabrics in domestic laundry procedures (Graydon, Lindsley, Brodie)	3	197
Processing and finishing rayon fabrics (McFarlane)	2	137
Rayon staple technology—key to future in textiles (Ashton)	9	568
See also **Blends; Cake drying; Carding; Cellulose; Chemical process control; Dyeing; Fabrics; Health hazards; Spinning; Staining; Textile machinery; Tire cord; Warping, Warps; Water; Waterproofing; Weaving**		
Reactivity: *See* **Cellulose**		
"Ready reckoner": *See* **Weights**		
Reagents: *See* **Dyes; Water determination; Wool**		
Rebeaming machine: *See* **Cotton**		
Redman process: *See* **Shrinkage**		
Reeds, applying with minimum of error (Wenrich)	9	569
Refraction: *See* **Viscosity**		
Refractive index: *See* **Polymers**		
Regain factor: *See* **Moisture determination**		
Repair costs, common denominator for (Pierce)	12	766
Reppe: *See* **Acetylene chemistry**		
Reproduction techniques for reports and information service (Weil, Lane)	9	571
See also **Abstracting; Research; Technical literature**		
Research		
Applied research in textile industry (Powers)	11	704
Market research in industrial fields (Duane)	1	67
Research areas of textiles and clothing (Brew, Brasie, Fitzsimmons, Rankin, Smart)	3	198
Research in wool textiles	9	572
Some practical application of recent wool research (Speakman)	11	704
Textile research achievements in 1947 (Goldberg)	4	261
See also **Abstracting; Clothing; Drying; Dyeing; Patents; Reproduction; Technical literature; Weaving**		
Resilience, generalized concept of (Hoffman)	8	507
See also **Elasticity; Fibrous materials**		
Resins		
Individual characteristics of plastics (identification of resins) (Nijveld)	3	197
Maleic and fumaric resins (Rowland)	1	66
Polyamide resins (Hovey)	5	324
Textile resins (Jaeger)	3	191
See also **Adhesives; Cellulose chemistry; Laminates; Plasticizers; Polymerization; Resistance; Rosin; Staining; Vinyon N**		
Resistance		
Resistance of resin-impregnated cotton fabrics to microorganisms (White, Siu)	4	252
Resistance of textile fibers to sun exposure and weathering (Salquain)	1	62
Resistance of treated felt gasket materials to fungus attack (Berk)	4	259
See also **Fiber properties; Laminates**		
Resonant cavities: *See* **Measurement**		
Retting: *See* **Flax**		
Rheology of thermoplastic materials: Polystyrene (Buchdahl)	10	639
Ring spinning: *See* **Spinning**		
Ripening: *See* **Cellulose acetate**		
Rosin, processes for modifying (Rinse)	11	704
Rotproofing: *See* **Mildew preventives; Mold; Resistance**		
Roving levelness		
Device on slubber controls roving yardage (Anon.)	11	704
How to figure lay per inch on roving bobbins (Martin)	4	255
Towards roving levelness (Audley)	4	255
See also **Twisting, Twists**		
Rubber		
Effects of pile bombardment on uncured elastomers (Davidson, Geib)	11	697
Stresses and birefringence in rubber subjected to general homogeneous strain (Treloar)	10	638
Tensile strength of pure-gum natural rubber compounds (Gee)	3	190
Thermodynamics of a strained elastomer (Mooney, Copeland)		
Part I: General analysis	11	697
Part II: Compressibility	11	697
Part III: Thermal coefficient of modulus and the statistical theory of elasticity	11	698
See also **Adhesives; Latex; Plasticizers; Polymers; Tire cord**		
Saco-Lowell straight line worsted process: *See* **Spinning**		
"Sainte-Colombe" loom: *See* **Weaving**		
Salts: *See* **Cellulose; Dyes; pH**		
Sample holder		
Sample holder for reflection-type samples to be used in G. E. electron diffraction instrument (Alessandrini)	8	505
Sealed sample holder for x-ray diffraction powder work (Christ, Champaygne)	8	505
See also **Cameras; Films; Filters; Printing; X-ray diffraction**		
Sampling: *See* **Acceptance sampling; Testing**		
Sanforizing: *See* **Shrinkproofing**		
Scott fabric clamps: *See* **Clamp design**		
Scouring		
Important notes on scoured wool (Patterson)	4	254
New methods for the scouring of wool		
Part I: Emulsions with tri-ethanolamine and ethylene glycol (Golosov)	12	763
Part II: Emulsions without olein (Polukarpov)	12	763
Wool raw stock scouring aided by synthetic detergents (Morgan)	4	252
See also **Detergents; Dyeing; Wastes**		
Screen printing: *See* **Printing**		
Sebacic acid: *See* **Synthetic fibers**		

	No.	Page
Selvage imperfections (Creasy)	3	197; 9 569
Shear: *See* **Viscometry; Viscosity**		
Shrinkage		
Anti-crease treatments (Bayle)	12	763
Redman process for controlling shrinkage of knitted fabrics (Williams)	11	702
Shrinkage of certain cotton woven fabrics caused by various laundering and pressing procedures (Fletcher, Jones)	9	569
Wool made shrink-resistant by improved chlorination (Shapiro)	3	191
Shrinkproofing		
Friction between keratin surfaces as affected by shrinkproofing treatments (Lipson, Howard)	5	321
Mechanical finishing of cellulose tissues at normal dimensions (Bonnet)	8	508
Methods for preparation of unshrinkable wool (Briggs)	1	67
Production of unshrinkability by cross-linkage formation in wool: Rate of reaction of mercuric acetate with animal fibers (Menkart, Speakman)	1	60
See also **Dyeing; Friction; Hosiery; Wool**		
Shuttle control: *See* **Weaving**		
Shuttles: *See* **Weaving**		
Silicates: *See* **Soaps**		
Silicones, chemistry of (Sos)	6	385
Silk		
Determination of the constituents of tin salt loading in silk (Cardoni)	6	385
*Silk and ramie yarn production in Germany (Aldred)	1	65
Studies on silk proteins: Properties and constitution of fibroin; conversion of fibroin into water-soluble form and its bearing on denaturation (Coleman, Howitt)	1	56
See also **Amino acids; Dyeing; Laminates; Weaving; Yarns**		
"Simplex" shuttle swell: *See* **Weaving**		
Sizing: *See* **Weaving**		
Slashing, Slashers: *See* **Drying; Warping, Warps; Weaving**		
Sliver: *See* **Carding, Cards**		
Slubber controls: *See* **Roving levelness**		
"Snowballs": *See* **Cardroom**		
Soaps		
Annual review of literature on fats, oils, soaps (Piskur)	6	385
Behavior of some alkali soap systems of organic solvents (Prasad, Hattiangdi, Wagle)	3	190
Heavy metal soaps of wool-wax acids: Lubricating greases and other uses (Lower)	5	324
Hydrolysis of soap solutions		
Part II: Solubilities of higher fatty acids (John, McBain)	6	379
Part III: Values of pH and absence of fatty acid as free liquid or solid (McBain, Laurent, John)	6	379
Part IV: Composition of acid potassium laurates and acid sodium oleates as determined by conductivity measurements (John, McBain)	6	379
Silicates in soaps (Merrill)	6	385
See also **Latex; Oils; Processing agents; Scouring; Solubilization**		
Socks: *See* **Hosiery**		
Sodium dichromate: *See* **Printing**		
Sodium oleates: *See* **Soaps**		
Softeners		
Application of high dibasic aliphatic acids: Glyceride as a softening agent (Shiina, Ueno, Tsujimura)	7	445
See also **Processing agents**		
Solubilization in textile processing (Creely)	4	252
See also **Detergents; Soaps**		
Solvation: *See* **Polymers**		
Solvents: *See* **Cellulose; Dyes; Soaps; Viscosity**		
Solvolytic oxidation: *See* **Cellulose**		
Sorption		
Effect of acetylation on sorption of water by cellulose (Hoover, Mellon)	8	505
Permeation through and sorption of water vapor by high polymers (Hauser, McLaren)	8	507
Sorption of nitrogen and water vapor on textile fibers (Rowen, Blaine)	5	322
Sorption of sulfuric acid dissolved in glacial acetic acid by cellulose (Semba, Yasunaga, Yamada)	7	443
Spectrophotometry		
Spectrophotometry (Barnes)	7	448
Spectrophotometry in textile industry: Testing dyestuff shipments (Mersereau, Barach)	12	759
See also **Color; Dyes**		
Speed frames: *See* **Weaving**		
Spherulites: *See* **Polymers**		
Spinning		
Analysis of results of end-breakage tests (Ormerod)	6	384
Analysis of technical factors controlling spinning breaks at ring frame (Charnley)	6	383
Combined building motion (Anon.)	4	256
*Continuous spinning of cuprammonium rayon at J. P. Bemberg, Wuppertal, and I. G. Farbenindustrie, Dormagen (Knight)	1	65
Conversion, ring frames (Anon.)	11	703
Cotton system easily adapted to rayon staple (Anon.)	9	569
Cotton-type machinery (50 years of improved machinery) (Anon.)	12	765
*Cuprammonium-process synthetic rayon in Germany (Taylor)	1	65
Direct spinner for tow produces fine, strong yarn (Bowden)	8	509
Effects of accessory influences on ring spinning of cotton and spun rayon (Honegger, Fehr)	2	137
End breakages at ring frame; effect on P. M. H. (Baines)	6	383
End breakages in cotton ring spinning (Anon.)	6	384
End breakages in cotton ring spinning (Hegedus)	6	384
Ends-down tests reveal spinning troubles (Gunther, Gross)	3	193
Fixers should know how to set builder (Gross, Gunther)	2	138
Flyer spinning of worsted yarns (Anon.)	12	764
Further developments in conversion of mule to ring spinning (Anon.)	4	257
Future of woolen spinning (mule vs. ring) (Anon.)	11	703
Harder and heavier cops (Anon.)	8	510
Improved French-type spinning (Anon.)	4	260
Influence of rayon staple on preparing and spinning machinery developments (Ashton)	3	194
Japanese new spinning frame (Anon.)	11	702
Large mule cops (Pomíret)	11	703
Large packages in the spinning and weaving industries (Draper)	4	258
Limiting factors for ring spinning frames (Westbrook)	3	194
Medley system (Anon.)	4	255
Modern ring spinning (Anon.)	4	256
Motor speed control in ring spinning as an aid to reducing yarn breakages (Stevenson)	6	384
Movable spindle rail (Sattanathan)	9	569
Nelson continuous rayon process (Anon.)	3	193
New worsted spinning process (Anon.)	11	702
New worsted spinning system (Anon.)	10	641
Notes on installing and operating the continuous stripper (Anon.)	11	703
Production in mule spinning (Jackson)	9	569
Rayon staple spins well on worsted system (Anon.)	3	193
Some factors affecting end breakage in ring spinning (Steiger)	6	383
Spinning calculations simplified (Anon.)	4	256
Spinning control cuts labor and waste (Thomas)	11	703
Spinning cotton, rayon, and wool on "American" system (McConnell)	12	764
Spinning end-breakage test; some typical results (Coulson)	6	383
Spinning of nylon staple fibers on cotton system (Beacon)	3	193
Spinning rayon staple on cotton spinning machinery (Kirschner)	11	703
Theory and practice of spinning (Westenberg)	4	256
Use of rayon staple in woven fabrics in England (Greenwood)	4	256
Wear in spinning rings (Anon.)	10	642
Woolen yarns: Some advantages of ring spinning (Anon.)	12	764
Worsted frame is "universal spinner" (Harrigan)	10	642
Wright Spinning Co. (Saco-Lowell process) (Anon.)	11	702
See also **Carding; Cotton; Jute; Moisture determination; Paper; Quality control; Spinning mills; Tension**		
Spinning mills		
Ideal cotton spinning mill (Hunter, Watson)	3	193
New textile roller clearers (Anon.)	11	704
New worsted-yarn mill uses long-draft-spinning (Anon.)	8	510
Selection and maintenance of roll clearers on preparatory machinery (Crowsly)	3	196
Woolen spinning mill is Belgian equipped (Zellnik)	10	642
See also **Carding, Cards; Mills and Milling; Spinning**		
Spinning paper: *See* **Paper**		
Spooling—charts aid computing spooler's task (Leppla)	3	195
Spot removal: *See* **Dyes**		
Staining		
Enhanced differentiation of skin and core in rayon fibers employing internal condensation resins (Landells, Mhatre, Narasimhan)	12	763
Staining of viscose rayon cross sections (Hermans)	8	507
Starch		
Configuration and packing of chain molecules of native starch in β-modification (Kreger)	2	137
Constitution of starch (Sutra)	6	380
Degradation of amylose by α-amylase (Bernfeld, Studer-Pécha)	6	379
Enzymic synthesis of starch (Hestrin)	9	572
V.I.-Viscosigraph, apparatus for continuous measurement of viscosity of starch suspensions (Selling, van Lamoén)	5	318
See also **Cellulose; Finishing**		
Static eliminators in textile processes (Westbrook)	4	258
Steric hindrance in macromolecular solutions (Duclaux)	4	249
Stopcock, a compact multiple way metal (Bauer)	6	385
Storage of textiles: *See* **Finishing**		
Strength: *See* **Clamp design; Fracture**		
Stress		
Behavior of concentrated polymer solutions under periodic stress (Ferry, Sawyer, Ashworth)	4	249
Instrument for measuring stress relaxation of high polymer materials (MacDonald, Ushakoff)	10	637
See also **Compressional behavior; Deformation; Fracture; Hair; Paper; Polymers; Resilience; Rubber**		
Stripper: *See* **Bobbins; Spinning**		
Stripping of dyed textiles by the use of hydrosulfite compounds (Starkie)	3	190
Styrene polymers: *See* **Polymers**		
Sugar: *See* **Cellulose; Glucose structure**		
Sulfites: *See* **Paper**		
Sulfuric acid: *See* **Sorption**		
Sulfuric acid steep: *See* **Cotton**		
Sulzer machine: *See* **Weaving**		

	No.	Page
Sun exposure: *See* **Resistance**		
Surface properties: *See* **Waterproofing**		
Surface-active agents: *See* **Carbowax; Detergent; Titration**		
Suspensions: *See* **Conductivity cell**		
Swell: *See* **Weaving**		
Swelling		
Orifice test to evaluate yarns for swelling-type water-resistant fabrics (Smith, Murphy, Goldthwait)	7	442
See also **Cellulose; Cellulose acetate; Cellulose fibers; Polymers**		
Synthetic dielectrics: *See* **Measurement**		
Synthetic fibers		
Know your synthetic protein fibers (Brother)	9	569
Raw materials for synthetic fibers		
Part I: Sebacic acid and decamethylenediamine from castor oil (Sugino, Murotani, Odo, Tachika)	6	378
Part II: Hydrolysis of acrylonitrile with caustic soda (Mamiya)	6	379
Some principles of the structure of synthetic fibers (Mark)	1	62
See also **Blends; Dyeing; Fabrics; Hosiery; Opening, Openers; Printing**		
Taber Abraser: *See* **Abrasion**		
Tackiness meter, improved (Lambert, McDonald)	6	377
Tannins: *See* **Cellulose chemistry**		
Tear strength: *See* **Fabrics**		
Technical literature		
Making technical reports understandable (Gray)	11	704
See also **Abstracting; Reproduction; Research**		
Temperatures: *See* **Dyeing; Tire cord; Viscosity**		
Tendering: *See* **Dyes; Printing**		
Tensile properties: *See* **Rubber**		
Tensile strength: *See* **Fracture; Wear-testing**		
Tension controlled by variety drives (Mansfield)	5	323
See also **Elasticity; Weaving**		
Testing		
Fiber testing aids the cotton classer (Carter)	3	187
Testing as an aid to efficiency in finishing (sampling) (Carter)	3	187
See also **Dyes**		
Textile industry		
Postwar textile processing (Jacoby)	3	195
See also **Brand names; Burlap; Cordage; Cotton; Cotton economics; Cotton mills; Dyeing; Fibers; Flax; Jute; Knitwear; Nylon; Quality control; Rayon; Research; Spooling; Stress; Woolens; Yarns**		
Textile machinery		
Body knitting equipment (Anderson)	11	703
Developments in textile machinery and appliances (Barke)	9	571
Mechanized preparation (Armstrong)	4	255
Modern Swiss textile machinery (Anon.)	12	766,
Modern trends in textile machinery (Cotterill)	8	510
*Viscose-making machinery in Germany	4	261
See also **Bobbins; Carding; Cordage; Cotton; Drafting; Dyeing; Hosiery; Knitwear; Lubricants, Lubrication; Mills and Milling; Nylon; Opening, Openers; Reeds; Spinning; Spinning mills; Textile industry; Twisting, Twists; Viscose; Warping, Warps; Weaving; Wool; Woolens; Worsted**		
Thermal conductivity: *See* **Cellulose acetate**		
Thermodynamics: *See* **Polymers; Rubber**		
Thermoelasticity: *See* **Rubber**		
Thermoplastics		
Plasticization of thermoplastics with special reference to stability (Halls)	11	703
See also **Adhesives; Rheology**		
Thioglycolic acid and bisulfite compounds, systemic and local effects of (Reiss, Gerstl)	8	505
Thixotropic viscoelastic systems (Dunell, Halsey)	8	508
Threads: *See* **Carding; Weaving**		
Thrips: *See* **Insecticides**		
Tin Salt: *See* **Silk**		
Tippy: *See* **Dyeing**		
Tire cord		
Degradation of rayon tire yarn at elevated temperatures (Waller, Bass, Roseveare)	12	761
Hysteresis, elastic modulus, and growth of tire cords under comparable loads (Honold, Wakeham)	4	254
Practical problems in the manufacture and service of tires built with continuous-filament cord (Dillon)	3	192
See also **Nylon**		
Titration		
Volumetric analysis of colloidal electrolytes by turbidity titration (Lambert)	3	188
See also **Latex; Polymers; Water determination**		
Tow: *See* **Spinning**		
***Tow-to-top,** staple fiber, conversion methods in Germany (Laszlo)	1	65
Toxicity: *See* **Plastics**		
Tracer techniques: *See* **Chemical process control**		
Transmission bands: *See* **Color**		
Tri-ethanolamine: *See* **Scouring**		
Trimmings and their applications (Shackleton)	12	765
Tubes: *See* **Cameras; Deformation**		
Turbidity: *See* **Titration**		
Twisting, Twists		
Ascertaining twist variations in two-fold worsted yarns (Pickles)	10	640
Determination of twist in yarns: Tentative (textile) specification No. 12, 1947 (Anon.)	6	382
Improve twisting operations by laboratory control (Pratt)	5	318
Modern combined doubling and twisting machine (Anon.)	5	323
New double-deck uptwister (Anon.)	12	765
New high-speed uptwisting machine (Anon.)	11	704
Twist in roving (Hayes)	8	509
Twisting novelty yarns (Botley)	7	446
Warp twisting-in machine technique (Wenrich)	12	764
See also **Friction; Jute; Mills and Milling; Roving levelness; Spinning; Textile machinery; Warping, Warps; Weaving**		
"Tygan" (upholstery): *See* **Fabrics**		
Typp numbering system: *See* **Yarns**		
Ultracentrifuge: *See* **Cellulose; Electrophoresis; Molecular weight**		
Ultrasonic waves: *See* **Cellulose**		
Ultrasonics (Heuberger)	1	67
"Universal spinner": *See* **Spinning**		
Upholstery: *See* **Fabrics**		
Urea process: *See* **Printing**		
Vacuum properties of dielectrics: *See* **Measurement**		
Vacuum pumping equipment and systems (Sullivan)	7	446
See also **Stopcock**		
Vacuum seal, metal-ceramic (Williams)	6	385
Vacuum valve, high-, and seal (King)	7	447
Vapor pressure: *See* **Measurement; Paper**		
Vinyl film: *See* **Printing**		
Vinyl halide polymers: *See* **Polymers**		
Vinyon N		
Properties and uses of "Vinyon" type N fibers (Stowell)	5	322
Review of Vinyon developments (Anon.)	5	322
Story of "Vinyon N" (Anon.)	7	445
Vinyon N yarns revealed (Anon.)	6	382
Visco-elasticity: *See* **Paper; Rubber**		
Viscometers: *See* **Viscometry**		
Viscometry		
Effect of consistency curve on development of modern viscometers (Green)	10	637
End-effect in rotational viscometers (Lindsley, Fischer)	6	377
Penetroviscometer for very viscous liquids (Bikerman)	12	760
Viscose		
*Viscose making machinery in Germany	4	261
See also **Blends; Cellulose; Swelling; Textile machinery**		
Viscosigraph: *See* **Starch**		
Viscosity		
Cragoe L function for viscosity of oils under pressure at certain temperatures (Dow)	12	760
Effect of ageing and of solvent composition on the coefficient η_{sp}/c (Chedin)	11	699
Evaluation of intrinsic viscosity (as intrinsic flow time) of GR-S in benzene (Cragg, Rogers, Henderson)	9	564
Non-linear viscous elasticity and the Eyring shear model (Halsey)	11	697
Pseudoplastic flow properties of lyophilic colloids (Fischer, Lindsley)	11	693
Remarks on Eyring's theory of viscous flow (van Velden)	8	506
Some measurements of double refraction of flow on carbohydrates (Snellman)	8	506
Variation with temperature of intrinsic viscosity of GR-S in benzene (Rogers, Henderson, Cragg)	9	565
See also **Carbowax; Cellulose acetate; Molecular weight; Paper; Polymers; Polystyrene; Starch; Thixotropic viscoelastic systems; Viscometry**		
Wadding card: *See* **Carding, Cards**		
Warp tension: *See* **Weaving**		
Warping, Warps		
"Cascade" warper for F. N. F. unit (Anon.)	4	257
Cotton system excellent for warping Bemberg (Gassman)	5	323
Crepe warping techniques applicable to Bemberg (Gassman)	12	764
Electrical slasher drives (Anon.)	12	765
Electrically driven, moisture-controlled slasher (Eaddy)	12	765
Gaiting jacquard warps (Middlebrook)	11	703
Hand twisting-in of warps (Wenrich)	4	257
Modern slasher-room features automatic controls (Thomas)	1	60
"Monofilizing"—main aim of rayon slashing (Anon.)	3	191
Preparation of worsted warps (Anon.)	4	257
Progressive steps—warp to loom (Middlebrook)	1	64
Slasher lubricator reduces warp and filling stops (Anon.)	9	572
Slashers, slashing (Silcox)...**5** 321; **7** 445; **9** 572;	11	702
Slashing problems discussed (Anon.)	1	61
See also **Drying; Textile machinery; Twisting, Twists**		
Wastes		
Hypochlorite process for treatment of wool-scouring wastes and for recovery of wool grease (Faber)	2	138
Hypochlorite treatment of wool-scouring wastes (Campanella)	2	138
Industrial waste problem: Brass and copper, electroplating, and textile wastes (Wise)	12	766
Reclamation of workable waste (Anon.)	7	445
Utilization of desizing washings for culture of industrially important microorganisms (Lulla)	10	639
See also **Carding; Condenser; Spinning**		
Water		
Water quality essential to textile processes (Calise)	10	642
See also **Cellulose acetate; Cellulose fibers**		

	No.	Page
Water determination by titration, Karl Fischer reagent (Johansson)	1	56
See also **Bleaching**		
Water supply (Anon.)	5	324
Water vapor: *See* **Sorption**		
Waterproofing		
Chemicals for textile treatment: Hexadecyl 3-hydroxy-2-naphthoate (Oshima, Hayashi)	6	382
Surface properties of organosilicon coatings: Application for waterproofing (Peyrot)	4	253
Waterproofing of fibrous materials (Halls)	8	508
See also **Fabrics (Tear strength); Rayon**		
Wax: *See* **Carbowax; Wool wax**		
Wear-resistance: *See* **Fiber properties; Resistance**		
Wear-testing		
Wear testing of textile materials (Anon.)	11	693
Wearing qualities of fabrics (Williams)	11	702
Weathering		
Weather protective treatments for cotton duck (AATCC)	9	568
See also **Cotton; Resistance**		
Weaves: *See* **Weaving**		
Weaving		
Automatic loom construction (de G. Gaudin)	4	259
Axminster carpet looms (Anon.)	8	510
Construction of corkscrew weaves (Bennet)	1	63
Efficiency in weaving and slashing (Anon.)	10	641
Factors affecting weaving of spun rayon-wool blended fabrics (Prokusi)	4	258
Fine-pitch center-shed Jacquard (Anon.)	9	571
Fly shuttle (Strong)	4	261
Furnishing fabric Jacquard (Anon.)	4	259
Increased production per man hour in weaving with particular reference to automatic looms (Joy)	3	195
Kellog loom has unique design features (Newell)	12	765
Loom study by means of cathode-ray oscillograph (Chamberlain, Snowden)	12	764
Machine timing at full speed done by oscillograph (Scheraga)	5	324
Manual guides: Draper loom fixing (Anon.)	5	323
Modern methods of fancy weaving (Anon.)	4	257
Modern methods of preparation for weaving cotton and rayon staple (Armstrong)	1	64
Modern systems of weaving (Manuel)	4	258
Modernizing existing looms by the application of new attachments (Anon.)	11	703
"More looms" system adapting the Lancashire loom (Yerkess)	3	195
New aluminum loom-beam barrel (Nuernberger)	5	324
New Boyce weaver's knotter (Smith)	11	703
New building motion for speed frames (Anon.)	3	195
New center-shed Jacquard loom (Anon.)	4	257
New loom features unit system (Kellog) (Anon.)	10	642
New smallware loom (Thompson)	12	765
Preparing weave harness for twisting (Wenrich)	4	257
Proper loom adjustments eliminate "bird's eyes" (Frantz)	10	641
Research methods in weaving machinery (Fitzgerald)	12	765
"Sainte-Colombe" loom (Barker)	5	323
Shuttle box swell (Strong)	12	765
"Simplex" self-aligning swell. New arrangement for loose reed motions (Anon.)	3	194
Sizing problems of the weaver and finisher (Walter)	9	568
Super shuttle control in weaving ("Macro" patent) (Anon.)	3	194
Warner and Swasey introduces Sulzer weaving machine (Newell)	9	572
Weaving suitings with rayon and silk effect threads (Anon.)	1	64
Wool yarn weaving, with particular reference to controlling of warp tension (Poole)	3	195
See also **Cotton; Fabrics; Nylon; Selvage imperfections; Sizing; Spinning; Textile machinery; Yarns**		
Web fabrics: *See* **Fabrics**		
Weighting: *See* **Silk**		
Weights		
"Ready Reckoner" to ascertain weights (worsted fabric) (Feher)	3	192
See also **Silk**		
Wet strength of artificial fibers, attempts to increase the (Lintner)	3	191
Wetting		
Wetting of textiles: Practical tests (Fink)	6	377
See also **Waterproofing; Wool**		
Window glass: *See* **Glass**		
Wood		
Hydulignum (laminated) (Anon.)	6	385
See also **Cellulose; Cellulose acetate; Chemistry**		
Wool		
Action of formaldehyde on cystine disulfide linkages of wool: Conversion of subfraction A of the combined cystine into combined lanthionine and djenkolic acid and subfraction B into combined 4-thiazolidine-carboxylic acid (Middlebrook, Phillips)	4	249
Coiling of wool induced by certain reagents (Freney)	5	320
*Miscellany of German wool textile industry (Holden)	1	66
New-type worsted yarns and fabrics from crossbred wools (Hardacre)	1	63
Physical properties of wool (Makinson)	7	446
Raising the count limit of wool (Audley)	5	322
Study of methods for determining ash content of wool (LeCompte, Parkes)	4	248
Washable wool interest peaks (Anon.)	10	641
Wetting of wool as a function of duration of Fadeometer exposure (La Fleur)	12	761
See also **Animal fibers; Blends; Carding; Color; Combs; Drafting; Drying; Dyeing; Dyes; Fabrics; Fibers; Friction; Hosiery; Knitwear; Microscopy; Ranges; Research; Scouring; Shrinkage; Shrinkproofing; Spinning; Wastes; Water; Weaving; Wool fibers; Woolens**		
Wool fibers, architecture of (Barker)	11	701
Wool wax		
Some uses of wool wax acids (Lower)	9	572
Wool wax (Gillespie)	9	572
See also **Soaps**		
Woolens		
*German woolen and worsted industry in World War II (von Bergen)	4	262
Manufacture of gossamer wool fabrics (Barker)	11	701
Woolen machinery (Anon.)	9	572
Woolen machinery development (Reynolds)	12	765
See also **Carding, Cards; Defects; Dyeing; Nylon; Spinning; Spinning mills; Weaving; Wool**		
Worsted		
Lightweight fabrics in worsted (Anon.)	11	701
Modern trends in worsted drawing (Anon.)	9	570
Worsted machinery development (Farnsworth)	12	765
See also **Carding, Cards; Defects; Dyeing; Moisture determination; Twisting, Twists; Warping, Warps; Weights; Wool; Woolens; Yarns**		
Worsted system: *See* **Spinning**		
Wrinkles: *See* **Fabric recovery**		
Xanthated soda cellulose fibers: *See* **Cellulose fibers**		
X-ray diffraction: *See* **Cameras; Films; Printing; Sample holder; Starch**		
X-rays		
Recovery time of Geiger counters for x-ray intensity measurement (Pepisky, Jarmotz, Long, Sayre)	7	443
See also **Cellulose (Atomic configuration); Cellulose fibers; Computer; Crystal-structure analyses**		
Yarn breakage detector: *See* **Electronics**		
Yarns		
Carpet yarns (Kershaw)	1	63
Conditions for maximum luster and maximum strength of ply yarns (Chakrabarti)	6	382
Continental and Anglo-Continental drawing (Wright)	3	196
Fancy yarns and furnishing fabrics (Anon.)	6	382
"Integral" yarn numbering system (Blackshaw)	4	260
New types of mercerized cotton yarns (Anon.)	8	509
Proposal for a reduced range of yarn counts (Bayes)	4	260
Spain's new method of yarn counting (Anon.)	4	260
Worsted yarn conditioning practice (Audley)	10	640
Yarn numbering (Grex, Poumar, Typp) (Snowden)	3	196
See also **Abrasion; Blends; Defects; Dyeing; Electronics; Fabrics; Fiber identification; Fiber properties; Knitwear; Light-diffraction; Measurement; Mercerization; Paper; Quality control; Selvage imperfections; Silk; Spinning; Spooling; Swelling; Tire cord; Twisting, Twists; Vinyon N; Weaving; Weights; Wool; Worsted**		
Young's modulus: *See* **Animal fibers; Polymers**		

Patent References

	No.	Page
Cellulose fibers, esterification process	1	68
Clothing, protective	6	386
Cotton		
Conditioning fiber, method and system	1	68
Cotton cleaner, cleaning	1	68
Cotton picking device	3	198
Dyeing		
Coloration of textile materials containing organic derivative of cellulose with leuco sulfuric esters of vat dyestuffs	1	67
Dyeing cellulose acetate fabrics with direct-dyeing dyestuffs, lower aliphatic alcohols, lower aliphatic acids	1	67
Dyeing fabrics comprising cellulose acetate with alcohol-thiocyanate swelling mixture	1	67
Dyeing fabrics containing cellulosic material and cellulosic material treated with quaternary nitrogen compounds	3	198
Dyeing strands of textile fibers or filaments	4	262
Dyeing textile materials comprising a cellulose carboxylic ester with vat dyes	1	67

	No.	Page
Fabrics		
Coating fabric with polyvinyl chloride	1	69
Controlling movement of fabric through processing chambers, apparatus for	4	262
Crinkled fabric and method for producing same	3	198
Elastic fabrics, method of manufacture	6	386
Imitation fabric	6	386
Impregnated flexible fabric, method for manufacture	1	69
Manufacture of decorative fabric articles having design in relief	6	385
Straightening apparatus for wefts of woven textile fabrics	1	69
Weaving and woven fabrics	3	198
Woven fabric and method of making	3	198
Fiber bonding—Process for treating fibrous materials	4	262
Fibers		
Composite textile strand and fabric	1	68
Fluffing up artificial staple fibers	1	68
Process for making elastic vinyl copolymer resin textile articles	1	68
Flameproofing		
Flameproofing of fabrics and composition therefor	1	70
Flame-resistant fabric material	1	70
Mildewproofing textiles	8	510
Printing		
Printing of cellulose acetate fabrics	1	67
Process of printing textiles with a powdered blanket	6	386
Rayon—Solvent for rayon and rayon treating solution	6	386
Rugs—Nonslip textile article	6	386
Stripping carding apparatus	1	67
Tow-to-top-manufacture of staple fiber yarns and tows	4	262
Weaving fabrics of plastic materials, apparatus	1	70
Yarns		
Conditioning warp, threads, yarns, and the like, apparatus for	1	70
Fluid treating apparatus for yarns	1	70
Imitation filaments, ropes, yarns, and the like	6	386
Nubbed yarns, apparatus for producing	1	70